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SYNOPSIS OF THE BRITISH BASIDIOMYCETES

A DESCRIPTIVE CATALOGUE OF
THE DRAWINGS AND SPECIMENS
IN THE DEPARTMENT OF BOTANY
BRITISH MUSEUM

BY

WORTHINGTON GEORGE SMITH, FLS

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P R E F A C E

IN 1905 the Trustees acquired the manuscript descriptions drawn up by Mr Worthington G. Smith, when preparing the fine series of coloured drawings of British Fungi which are exhibited in the Public Gallery of the Department of Botany. The descriptions were accompanied by line drawings illustrating the characters of each genus. In 1907 the Trustees gave permission for their publication in the form of the present Handbook, which it is hoped will prove a useful introduction to the study in the field of the larger British Fungi. Of the numerous introduced species all that have appeared in the open air are included, but those occurring in greenhouses and stoves are omitted, except those which continually reappear, and those which stray into gardens.

Mr Smith himself and Mr W. L. St John Brooks, Assistant in the Department, have given valuable help in the preparation of the book for the press.

A. B. RENDLE

DEPARTMENT OF BOTANY,
BRITISH MUSEUM

October, 1908

SYNOPSIS

OF

BRITISH BASIDIOMYCETES

INTRODUCTION

THE British Basidiomycetes include nearly all the larger British Fungi. They comprise all the Mushroom-like Fungi, practically all the larger woody corky and gelatinous fungi of trees stumps and fallen branches (*Hymenomyces*), the Phalli, Puff-balls and their allies, and a small number of Truffle-like subterranean species (*Gasteromycetes*). The term Basidiomycetes is used in the sense in which

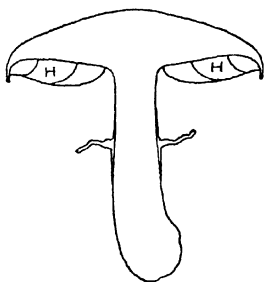


FIG. 1.—Section through Mushroom showing exposed hymenium H
One half natural size

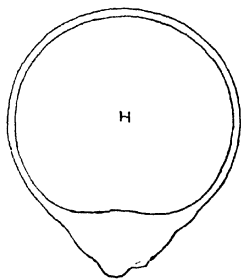


FIG. 2.—Section through Puff ball showing hymenium (H) closed in
One quarter natural size

it was employed by De Barv, and not with the larger meaning assigned to it by Brefeld, which includes the Rust-fungi or *Uredineæ*.

In the *Hymenomyces* the spore-bearing surface or *hymenium* is exposed during development, as in the Mushroom (fig. 1), in the *Gasteromycetes* the hymenium is closed or hidden within the substance of the fungus until maturity, as in the Puff-ball (fig. 2)

The larger Fungi not described in this work are a few of the Ascomycetes, including the Morel and its allies, the true ascus-bearing Truffles and a limited number of Cup-fungi

44 The microscope is unnecessary for the determination of the greater number of the Basidiomycetes, nearly all are large and can be satisfactorily examined by the unaided eye or with the assistance of a hand-lens. A few forms found under Family IV *Thulphoraceæ*, as *Solenia* and *Cyphella*, superficially resemble certain of the Ascomycetes, as *Peziza*, but with a little experience even obscure forms may be easily determined with the aid of a simple lens. In some genera of the *Thulphoraceæ* a microscopic examination of the hymenium is sometimes desirable.

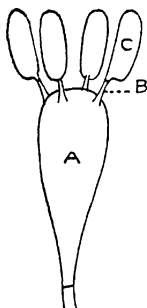


FIG. 3.—*Iliurotus ostracatus* Quel.

A basidium B sterigma
C spore X 750

The Basidiomycetes are highly plastic and variable. No one species is constant in all its characters, and a single example seldom wholly accords with any other single example of the same species. Examples which appear to be intermediate between allied, and sometimes between not allied, species are frequently met with. About one species in ten is perhaps fairly well and distinctly marked, but all species will at times present aberrant characters. Any one character is liable to fail in the determination of species, therefore, all the characters must be studied together.

The Basidiomycetes are so named on account of the spores being borne on more or less club-shaped cells named *basidia* (fig. 3). They are commonly borne in fours, on slender usually short threads or supports named *sterigmata*. In rare instances, however, the basidium bears two spores or perhaps only one, in these cases the normal number of four is sometimes reverted to in well-developed examples. In some species of the *Trametes* the spores are septate, and in some *Gasteromyces* six or even more spores are produced on a basidium.

The spores are usually smooth and simple or composed of one cell, they are sometimes echinulate or warted. The commonest form is oval or round, a few are multiangular. They are of microscopic size, varying from about 18μ to 3μ in length, and of various colours.

The character of the basidium with its four naked spores is one of great importance, as it separates the Basidiomycetes from the Ascomycetes. In the latter the spores are borne usually in a series of eight, within microscopic transparent elongated colourless sacs named *asci* (fig. 4), the *asci* when ripe open at the apex and the spores escape.

In an examination of the spore-bearing surface or hymenium of

the Basidiomycetes three kinds of cells are met with,—the ordinary barren cells of the hymenium, the basidia with the spores, and certain other large cells named *cystidia*. The last-named are sometimes very small or practically absent, as in *Clavaria*, in other genera they are very large, as in *Coprinus* (fig 5), *Hymenochaete* (fig 6) and *Panophora*.

The more highly developed Basidiomycetes as a rule bear white or slightly tinted spores, the lower or dung-borne species usually produce black spores. In most instances the spore-colour is permanent, but in some species it vanishes and leaves the spores hyaline. The colour of the spores is often used as a generic or subgeneric character, the tint often, but not invariably, gives the distinctive hue to the mature hymenial surface. It is readily seen by placing examples with the hymenium downwards upon a piece of glass on which the spores will be deposited.

At maturity, the spores of the *Hymenogaster* drop from the sterigmata and are free in the air, but in the *Gasteromycetes* the outer coats become naturally ruptured before the spores can escape. In the *Phallodaceæ* the sporiferous surface is at first enclosed in a veil (*volva*), and even after the elongation of the stem, the cap (*pilius*) is covered by a very thin, almost invisible membrane, when the spores are ripe they are enveloped in mucus which runs down



Fig 4—*Morchella esculenta* Pers
A basidium B spore C paraphysis.
X 500

from the upper parts of the fungus to the lower, where there is a gelatinous stratum, the spores may possibly germinate in the decomposing gelatine. In the fetid species the odour attracts swarms of flies and sometimes small beetles to the sporiferous mucus, which they eagerly devour. On flying away the insects disseminate the spores, which have been seen to germinate after having passed through flies. In the *Lycoperidaceæ* the spores are at first enclosed in a peridium, and it is only when this is ruptured that they are set free. The *Hymenogasteraceæ* are subterranean, or nearly so, and the spores must either germinate in the decaying substance of the mother plant or be carried away by larvae, insects, etc.

In germination the spores open at one or both ends, a transparent germinal tube emerges (fig 7) and forms strands, threads or hyphae of cellular mycelium. The strands branch and coalesce

with other hyphæ belonging to other spores of the same species. In rare instances, as in the *Trimellinacæ*, the spores germinate and

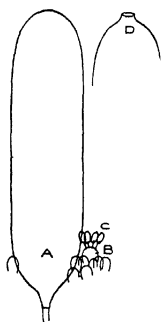


Fig. 5—*Coprinus atramentarius* L.
A cystidium orifice open at D
B basidium C spores $\times 200$

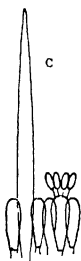


Fig. 6—*Hymenochaete micascens* Cooke
Part of hymenium with long cystidium C $\times 300$

produce a rudimentary mycelium (*promycelium*) bearing spores, from which only is a true mycelium produced. The mycelium or finely matted growth produced by germinating spores is the "spawn" of gardeners. It is usually white in colour, but is sometimes tinted in one or two instances it is blood-red. If the mycelium or spawn be placed upon a suitable matrix the fungus will, under favourable circumstances, be reproduced. The spores of some Basidiomycetes very speedily die after



Fig. 7—*Lathyrella prona* Cill
Spores germinating $\times 350$

falling from the hymenium. No sexual organs are known in the Basidiomycetes.

The season of growth is usually the autumn, but a considerable number appear in the spring and summer, and some continue to grow till late in the autumn or even early winter. Many species of *Marasmius* will, after being quite parched in dry weather, revive in rain, and several of the late growing species of *Clitocybe* and *Collybia* revive after being frozen. There are two crops of some Basidiomycetes every year, one vernal and the other autumnal, this is the case with *Coprinus atramentarius*, of which the first crop appears after the rains of April and May, the second in September or October. If vernal examples are gathered and buried with decayed wood or beside decaying posts a crop of perfect fungi will appear in September or October. There are sometimes three crops of *Coprinus micaceus* in one year. If living plants of *Coprinus*

radiatus are placed upon manure heaps the spores will germinate at once and reproduce the plant in a day or two

Some of the perennial *Polyporaceæ* continue to increase in size for many years. The years of growth can be counted in the annual flesh-strata, which are easily seen when sections are made. Mycelium will continue to live in wood or in the ground for an apparently unlimited time. I have known a "fairy-ring" of *Clitocybe geotropa* on Dunstable Downs for forty or more years, which under favourable conditions of light can be seen at a distance of more than a mile. The diameter has not altered much during the time I have known it, for sometimes it grows inwardly for several years and then again outwardly.

Most species are terrestrial and grow on or just below the ground, a large number grow on dead leaves and twigs, others on dead wood, bark, branches and trunks. It is unusual to see fungi on healthy trees, the majority of the larger fungi so commonly seen growing on tree-trunks in parks, woods and forests are "wound parasites," which germinate upon a damp injured place and grow parasitically upon the living host. Rootlets are often attacked by mycelium which at length develops as a perfect fungus at the tree's base, as in *Fomes annosus* or in other cases travels further up the trunk as in *F. ignarius*, and other species. *Polyporus Schwannii* is well known to be highly destructive to conifers, *Pinus Strobus*, *P. sylvestris* and *Larix laricina* especially suffer. Many other species of *Polyporus* are more or less destructive. Amongst the *Agaricaceæ*, *Armillaria mellea* is one of the most destructive, it often grows upon living roots, not uncommonly under the shade of large trees, the growth of the fungus being limited to the extent of the root-growth of the trees. One form of its mycelium, named *Rhizomorpha*, lives perennially beneath the bark of trees. It destroys tree-roots, chiefly those of conifers, but sometimes attacks plum and other trees, it also appears on squared timber, when used for bridges, in mines, etc.

Certain species grow parasitically upon other Basidiomycetes. *Volvaria Loviana* grows upon the pileus of *Clitocybe nebularis*, two species of *Nyctalis* grow upon the pileus or stem of species of *Russula* and *Lactarius*, and *Boletus parasiticus* grows from the base or side of *Scleroderma vulgare*. Some species are almost peculiar to human habitations. *Coprinus radians* grows upon plastered walls, *C. aphthosus* commonly appears in kitchens and cellars, *Merulius lacrymans* (Dry Rot), *Poria hybrida* and *Polyporus destructor* are almost entirely confined to the interior of houses and ships, and *Merulius corium* often grows in dwelling-houses. *Coprinus domesticus* is usually seen in or close to human dwellings, *C. comatus* and *Cortinarius urticus* commonly grow close to houses or to places where human beings resort. Many species grow on burnt wood and earth, as *Clitocybe fumosa*, *Collybia atrata*, *C. ambusta*, *Flammula decipiens*, *F. sapinea*, *F. carbonaria*, *Leptota Friesii*, *Cantharellus radicosus*, *Polystictus cinnamomeus*, and many others.

The taste of the majority of the Basidiomycetes when raw is watery-insipid, many are practically tasteless or mild. Some when uncooked have a pleasant nutty flavour, as *Psalliota campestris* (mushroom) and *Lepiota procera*. Several are bitter, as *Boletus felleus*, others are bitter-nauseous, as *Hypholoma fasciculare*, and many species of *Lactarius* and *Russula* are very acid or bitter acid.

The odours are most diverse. *Clitocybe fragrans* is very sweet and recalls Melilot, as does also *Hydnum gratiolens*, *C. odora* is fragrant of Woodruff or Vernal Grass. *Trametes suaviolens*, *T. odora*, *Lactarius glycosmus* and *Clavaria stricta* are also very sweet-scented. One variety of *Cantharellus cibarius* smells strongly of apricots, and *Clitocybe geotropa* is almond-scented. Many smell strongly of onions or garlic, the best known examples being different species of *Marasmius*. Fetid and disgusting odours are common, a familiar instance is that of *Ithyphallus impudicus*. The odours possibly serve some purpose at present unknown. The carrion-scented species attract swarms of carrion-feeding insects which greedily devour the highly fetid, soft, sponiferous material of the *Phallodacæ*.

The exudation of fluid, the so-called milk, when the stem is broken, is a remarkable character of some species. *Mycena galopus* and *M. lactia* contain a white, *M. crocata* and *M. chlidonia* a yellow, *M. hematopus* a dark purple-red, and *M. sanguinolenta* a red juice, *Lactarius deluosus* exudes an orange-coloured and *L. sanguifluus* a deep blood red juice which, on exposure to the air, quickly becomes green. The milk of *L. chrysorrheus* and *L. theiogalus* is sulphur-yellow, that of *L. acris* is at first white, then reddish. The milk of *L. uvidus* is white and quickly changes to violet, that of *L. scrobiculatus* is first white, then sulphur, that of *L. fuliginosus* is white, then saffron. The stem of *Marasmius ruficosus* is filled with dark blood-red juice, which flows when the stem is bruised or broken.

Some species of *Agaricacæ*, as *Hypholoma lacrymans* and *H. velutinum*, have "weeping gills", in mature examples drops of fluid may be seen sprinkled all over the surface of the gills which, when examined under the microscope, are seen to be charged with spores and cystidia. The hymenium of the dry rot fungus, *Mirulius lacrymans*, is usually covered with globules of exuded moisture, *Polyporus dryadus* is often seen in the same condition.

The Basidiomycetes as a rule do not exhibit brilliant colouring, but there are remarkable exceptions, the most striking being scarlet and crimson, as in *Amanita muscaria*. Yellow, orange blue, purple, and white also occur, also rarely green and black, but the majority are pallid, watery-brown, brown, greyish or buff. The brown and buff colours of Agarics often cause the fungi to be overlooked when growing amongst dead leaves.

The Mushroom is a highly nitrogenous plant and contains a con-

siderable amount of fat. The following are its chief constituents, as given by Professor A. H. Church —

	In 100 parts	In 1 lb
Water	90.0	14 oz 175 gr
Albuminoids etc	5.0	0 oz 350 gr
Carbohydrates etc	3.8	0 oz 266 gr
Fat	7	0 oz 49 gr
Mineral matter	5	0 oz 35 gr

The chemical composition of the Champignon, *Marasmius oreadis*, is nearly the same. Several species are known to be highly poisonous in all stages of growth, both cooked and uncooked, those without unpleasant taste are the most dangerous, as *Amanita phalloides*.

Specimens of fungi for determination must be quite perfect and fresh; examples past maturity are useless. Young specimens should be secured whenever possible, as some characters which are then very obvious vanish as the plant advances to full growth.

In the descriptions which follow the sequence is almost identical with that of Fries's *Hymenomyces Europæi*, 1874. This sequence has been almost universally approved, and has been followed in this country by Berkeley, Cooke, Stevenson, and in my supplementary volume to Berkeley's *Outlines of British Fungology*. The large collection of drawings, prints and dried examples of British Basidiomycetes in the Herbarium of the British Museum is arranged on the same plan.

The number before each species corresponds with the number in my series of coloured drawings of British Fungi exhibited in the Public Gallery of the Department of Botany, British Museum.

The letters *a b c* used in the text refer to the drawings and specimens in the British Museum. The letter *a* indicates that there is a drawing of the species in the Public Gallery, *b* that there is a drawing and *c* that there is a specimen in the Herbarium.

The specific descriptions contain the salient distinctive characters, which must be used with the generic and sectional characters. If fuller descriptions of the Hymenomycetes are desired, Fries's *Hymenomyces Europæi* (1874) and his *Monographia Hymenomycetum Suecicæ* (1857) may be consulted; the Gasteromycetes are described in greater detail in Massée's *Monograph of the British Gasteromycetes* (1889) and the same author's *British Fungus Flora*, vol. 1 (1892). Saccardo's *Sylloge Fungorum* (1882-1908) may also be consulted.

The names of species obviously introduced are printed in small capitals, introduced genera are distinguished typographically.

The text was prepared and checked at the time when the drawings were made, when living and dried examples, drawings, plates, printed descriptions, and notes were before me.

The dimensions give the typical size in inches of well-developed examples as found in Britain, for which those given by Fries are

sometimes very misleading. The numerals represent the diameter of the pileus, the height from the base of the stem to the top of the pileus, and the diameter of the stem near the middle. The stem in most of the stem-bearing Basidiomycetes is cylindrical or slightly attenuated upwards, this character is not reiterated in the descriptions, where departures from the type only are given. In stemless species, which are generally excentric, the longer diameter of the pileus is given.

The notes as to taste and odour are generally original, supplemented by the observations of others, those as to colour have in most instances been drawn up from living examples, supplemented by printed descriptions and by reference to characteristic coloured drawings and plates.

The habitats and dates of appearance are from my own notes, and from observations of other British botanists, in a few instances no habitat or date is on record.

Spore measurements have been omitted as untrustworthy, in many cases authors have measured immature spores from young plants, in others it is certain that authors have misnamed the fungus from which the spores have been taken.

The following abbreviations are employed -

HYMENOMYCETES

A	Annulus	Pa	Papillæ
Br	Bristles	Pa	Pileoli
Cl	Clubs	Po	Pores
Co	Cortina	Sc	Sclerotium
G	Gills	Sc	Setæ
Gr	Granules	Sp	Spines
Hym	Hymenium	St	Stem
H	Hymenophore	Sub	Subiculum
Myc	Mycelium	T	Tubes
P	Pileus	Te	Teeth
	circ circumference	Tub	Tubercles
	gr granules	V	Veil
	margin margin	Ve	Veins
	mid middle	Vo	Volva
	sc scales	/	Zones
	sq squamules		
	um umbo		
	z zones		

The stem is supposed to be cylindrical or nearly so unless otherwise described, and simple if without volva and annulus.

GASTEROMYCETES

Cap	Capillitium	Ex	Exoperidium	Per	Peristome
Col	Columella	Fun	Funiculus	Peri	Peridium
Cor	Cortex	Gl	Gleba	Rec	Receptacle
End	Endoperidium	Pc	Peridium	Vo	Volva
		Ped	Pedicle		

ORDER I HYMENOMYCETES

Basidia and spores exposed in the mature plant (fig 8)
Families I-VI

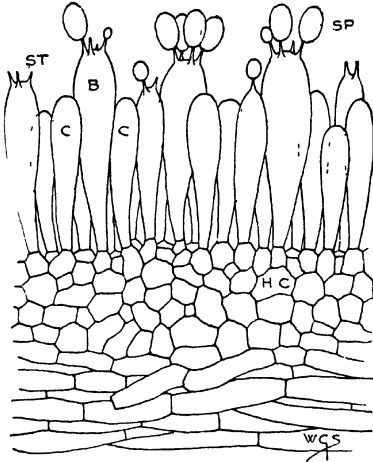


Fig 8 - Basidia and spores of Mushroom *Psalliota campestris* Quel
B basidia ST spores C cystidia or barren basidia
T sterigmata H C hymenial cells X 1000

- I AGARICACEÆ Hymenium spread over the surface of radiating gills or lamellæ Genera 1-58
- II POLYPORACEÆ Hymenium lining the surface of small pores or tubes Genera 59-69
- III HYDNACEÆ Hymenium spread over spines or protuberances Genera 70-79
- IV THELEPHORACEÆ Hymenium unilateral, spread over a firm smooth or corrugate under or upper face Genera 80-90
- V CLAVARIACEÆ Hymenium spread over the surface of smooth, simple or branched clubs in *Sparassis* over a large sponge-like mass of coalescing branches Genera 91-96
- VI TREMELLINACEÆ Hymenium spread over a smooth gelatinous surface Genera 97-106

ORDER II GASTEROMYCETES

Hymenium concealed within a peridium until the spores are mature (fig 9) Families VII–XI

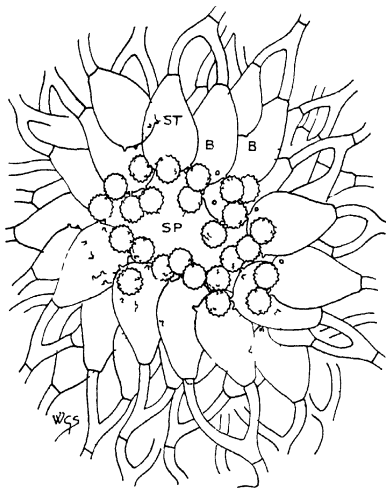


Fig 9—I usula and spores of *Schlerodroma ulgare* Fr
B basidia ST, spores ST sterigmata X 400

- VII PHALLOIDACEÆ Pilcus and stem or latticed receptacle at first enclosed in a globular peridium with a gelatinous stratum. Peridium at length opening at the apex and the gleba extended on a stem or lattice. Genera 107–110
- VIII LYCOPERDACEÆ Peridium globular, with a capillitium, at length opening for the dispersion of the spores. Genera 111–116
- IX SCLERODERMACEÆ Peridium globose, thick, without a capillitium, dehiscing irregularly. Genera 117–118
- X NIDULARIACEÆ Peridium bell- or cup-shaped, containing compressed or globose peridiola which become free at maturity. Genera 119–122
- XI HYMENOGASTRACEÆ Subterranean, peridium without a capillitium, indehiscent. Genera 123–128

ORDER I HYMENOMYCETES

FAM I AGARICACEÆ

Hymenium spread over the surface of radiating gills, the axis a stem, rarely a point, usually central, sometimes lateral. In some forms the young fungus is entirely enclosed in a *primary* or *universal veil* (fig. 10 B). During growth, as the stem elongates, the veil is ruptured, the lower portion called the *volva* (Vo) remaining as a sheath round the base of the stem, while the upper portion, still attached to the pileus, is torn into fragments as the latter expands (11). In some species a *secondary* or *partial veil* is also present in the earlier stages, spreading from the upper part of the stem to the edge of the pileus. This veil is finally ruptured, and partly persists as a *ring* or *annulus* (A) encircling the stem. Contains two-thirds of the whole Basidiomycetes. Species 1—1455

KEY TO THE GENERA

In using the key for the determination of the genus the following characters must be ascertained —1 Colour of the spores. 2 Nature of the substance, whether fleshy, putrescent, deliquescent or coriaceous. 3 Whether the hymenophore is distinct from the stem, or confluent and homogeneous with it. 4 Nature of the pileus, whether dry, viscid, silky, etc. 5 Nature of the stem, whether simple, annulate or volvate, and whether it is homogeneous with the pileus, or heterogeneous with a cartilaginous bark. 6 Nature of the gills and their attachment to the stem.

I Spores white

A Plant fleshy, more or less firm, not deliquescent or coriaceous.

Hymenophore distinct from the fleshy stem

Pileus bearing warts or patches free from the cuticle

Stem volvate and annulate

1 AMANTIA

Stem volvate

2 AMANTIOSIS

Pileus pulverulent, smooth or scaly, scales, when present, concrete with the cuticle

Stem annulate

3 LEPIDOTA

Stem simple

4 HEMIOLA

Hymenophore confluent and homogeneous with the fleshy stem

Stem without cartilaginous bark

Stem central (some of the plants under 50 are stemless)

Annulate

5 ARMILLARIA

- | | | |
|--|----|-------------------|
| Simple | | |
| Gills sinuate | 6 | TRICHOLOMA |
| Gills decurrent | | |
| edge acute | 7 | CLITOCYBE |
| edge swollen | 50 | CANTHARELLUS |
| separating from hymenophore | 46 | PANILLUS |
| | | (Group I Lepista) |
| Gills adnate | | |
| Parasitic on Agarics | 51 | NYCTALIS |
| Not parasitic | | |
| Milky | 48 | IACTAKIUS |
| Not milky | | |
| Rigid and brittle | 49 | RUSSULA |
| Waxy | 47 | HYGROPHORUS |
| Stem lateral or absent | 11 | PLEURKOTUS |
| Stem with cartilaginous bark | | |
| Gills usually adnate | 8 | COLLYBIA |
| Gills sinuate | 9 | MYCENA |
| Gills decurrent | 10 | OMPHALIA |
| B Plant tough, coriaceous or woody | | |
| Stem central | | |
| Gills simple | 52 | MARASMIUS |
| Gills branched | 55 | ALCOTUS |
| Stem lateral or absent | | |
| Gills toothed | 53 | LENTINUS |
| Gills not toothed | 54 | PANUS |
| Gills channelled longitudinally or crisped | 56 | IKOGIA |
| Gills splitting longitudinally | 57 | SCHIZOPHYLLUM |
| Gills anastomosing | 58 | LENZITIS |
| II Spores rosy or salmon colour | | |
| A Stem without cartilaginous bark | | |
| Hymenophore distinct from the fleshy stem | | |
| Stem volvate | 12 | VOLVAKIA |
| Stem annulate | 13 | ANNULAKIA |
| Stem simple | 14 | PLUTEUS |
| Hymenophore confluent and homogeneous with the fleshy stem | | |
| Stem central | | |
| Gills adnate or sinuate | 15 | ENTOLOMA |
| Gills decurrent | 16 | CLITOPILUS |
| Stem lateral or absent | 20 | CLAUDOPUS |
| B Stem with cartilaginous bark | | |
| Gills decurrent | 19 | ECCILIA |
| Gills not decurrent | | |
| Pileus scaly | 17 | LEPTONIA |
| Pileus papillose, subcampanulate | | |
| Gills membranous, persistent | 18 | NOLANEA |
| Gills subdeliquescent | 43 | BOLBITIUS |
| III Spores brown, reddish or yellowish brown | | |
| Stem without cartilaginous bark | | |
| Stem central | | |
| Stem annulate | | |
| Annulus membranous | | |
| Terrestrial | 22 | TOGARIA |
| Growing on wood | 24 | PHOLIOTA |
| Annulus arachnoid, filamentous or evanescent | | |
| Gills adnate, terrestrial | 44 | CORTINARIUS |
| Gills decurrent or adnate, growing on wood | 27 | FLAMMULA |

Stem simple	
With a volva	21 ACETABULARIA
Without a volva	
Gills adhering to the hymenophore and sinuate	
Cuticle fibrillose or silky	25 INOCYBE
Cuticle smooth, viscid	26 HEBELOMA
Gills separating from the hymenophore and decurrent, stem sometimes obsolete	46 PANILLUS
Gills decurrent	(Group 2 <i>lapina</i>)
Gills not decurrent	30 TIBARIA
Margin of pileus at first incurved	28 NAUCORIA
Margin of pileus always straight	
Hymenophore free from the stem	23 PITTELOUS
Hymenophore confluent with the stem	29 GALERA
Stem lateral or absent	31 CREPIDIUS
IV Spores purple, brownish purple, dark purple, or dark brown	
A Stem without cartilaginous bark	
Hymenophore distinct from the fleshy stem	
Stem volvate	32 CHITONIA
• Stem without a volva	
Stem annulate	33 PSALLIOTA
Stem simple	34 PILOSACE
Hymenophore confluent with the stem	
Veil normally ring like on the stem	35 STROBILARIA
Veil normally fibrillose and adhering to the margin of the pileus	36 HYPHOMYCE
B Stem with cartilaginous bark	
Margin of pileus at first incurved	37 PSILOCYBE
Margin of pileus at first straight	38 PSATHURA
Spores black or nearly so	
Gills deliquescent	42 COPRINUS
Gills not deliquescent	
Gills decurrent	45 GOMPHIDIUS
Gills not decurrent	
Stem annulate	39 ANTELAKIA
Stem simple	40 PANLOLUS
Pileus striate	41 PSATHURELLA

Genera 1-41 represent the genus *Agaricus* as understood by Fries who regarded the modern genera as of subgeneric rank only. They include species 1-920, and are arranged in five series defined by the colour of the spores as illustrated in the five diagrams (Plates I-V).

The genera which are marked in corresponding positions on the different diagrams are structurally identical, the only difference is in the colour of the spores. For instance, *Amanitopsis*, on the first diagram, has white spores, it corresponds in structure with *Volvaria*, with pink spores, on the second diagram, with *Acetabularia*, with brown spores, on the third, and with *Chitonia*, with purple spores, on the fourth. There is no genus structurally identical with *Amanitopsis*.

in Britain with black spores, consequently this position on the fifth diagram is left vacant

White-spored species represent the highest types and black-spored species the lowest, the pink-, brown-, and purple-spored species are intermediate. *Amanita* is the highest type of the white-spored Agarics. The majority of the white-spored species are terrestrial and more or less persistent, whilst the black-spored species commonly grow on dung and are evanescent.

SERIES I LEUCOSPORI Fr

(From the white spores, Gr *leukos*, white, *sporos*, a seed)

Spores white, rarely with a faint shade of ashy-grey, a faint tint of ochre, pale brown or pale greenish, usually oval or round and smooth, rarely slightly spinulose. Genera I—XI

I AMANITA Pers

(Galen's name for certain fungi)

Veil universal, clothly, distinct from the cuticle of the pileus, after rupture, as maturity is reached, remaining as a volva at the base of the stem, with broken patches of its substance frequent on the pileus. *Hymenophore* distinct from the fleshy stem. *Pileus* convex,

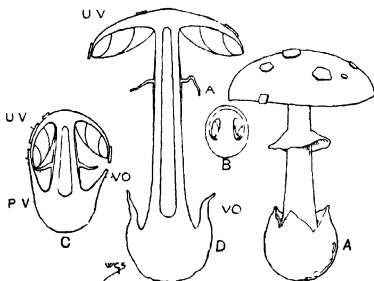


Fig 10—*Amanita phalloides* Link. One third natural size
A perfect plant B section of young plant showing universal veil C section of half grown example showing rupture of universal veil D section of mature example UV universal veil PV, partial veil, becoming annulus A annulus VO volva

then expanded, not decidedly fleshy. *Stem* central, annulate and volvate. *Gills* free or nearly so, white or whitish (Fig 10)

All the species grow on the ground in woods and uncultivated places. A few are edible, others are poisonous or suspicious.

Species 1—17

Volva bulb-like, large, exhibiting a free expanded border in splitting *Pileus* naked or nearly so, and viscid, except **4a**, **4b**, and **4c**, margin striate, except **4a**, **4b**, and **4c** *Gills* free or adnexed
1—4

Volva splitting regularly, its margin closely adpressed to the stem and the detached upper part forming patches or warts on the pileus *Gills* free
5—9

Volva friable, broken into small scales or warts, not persistent at the somewhat bulbous base of the stem
10—13

Volva rudimentary, floccose disappearing *Stem* slightly enlarged at the base, not truly bulbous
14—17

1 A virosa Quel (*viridis*, poison) *a b c* Wholly white

P marg lobed, floccose with *V* *St* somewhat scaly *A* large
Vo lax, wide

Poisonous, fetid Woods, uncommon Aug—Oct $5 \times 7\frac{1}{2} \times \frac{5}{8}$ in Compare **3** This and the next when young greatly resemble the edible mushroom

2 A phalloides Link (from the volva as in *Phalloidaceæ*) *a b c*

P white, yellowish or light, or dark olivaceous *St* somewhat smooth, white

Poisonous, narcotic, acrid Odour when young, strong, not disagreeable, at length fetid Woods, frequent Apr—Nov $3\frac{1}{2} \times 4\frac{1}{2} \times \frac{5}{8}$ in Many fatal cases of poisoning on record

3 A verna Quel (*ver*, spring) *a b* Wholly white

P marg not lobed, not floccose *St* floccose *A* not large
Vo somewhat adpressed to stem

Probably poisonous Odour not strong, but unpleasant Woods, uncommon May—Oct $3 \times 5 \times \frac{5}{8}$ in Probably var of **2** Compare **1**

4 A mappa Quel (from the resemblance of the volva to a napkin, *mappa*) *a b c*

P dry, patched with remains of *Vo*, white to pale yellowish-buff
St somewhat smooth, white

Poisonous, fetid Woods, frequent Usually small Aug—Nov $3 \times 3\frac{1}{2} \times \frac{1}{2}$ in Compare **12**

4a A porphyria A & S (from the colour of the pileus) *a b*

P warm brown or purplish-brown, marg smooth *St* slightly scaly below, whitish *A* distant

Odour none Woods, pine Sept $9\frac{1}{2} \times 3\frac{1}{2} \times \frac{5}{8}$ in

4b A recutita Gill (from the smoothly cut edge of the volva) *a*

P sometimes umbonate, dry, glabrous, pale or vinous-umber, marg smooth *St* slightly scaly below, white, becoming faintly brownish *A* distant *Vo* more or less adpressed

Woods, pine Sept $6\frac{1}{2} \times 4\frac{5}{8} \times \frac{5}{8}$ in

4c A aureola Gill (from the golden colour of the pileus) *a b c*

P slightly umbonate, bright yellow or orange-yellow, marg

- smooth *St* floccoso-squamose, white *A* superior, large, spreading
 Woods, under birches Sept $3\frac{1}{2} \times 7\frac{1}{2} \times \frac{1}{2}$ in
- 4d **A citrina** Pers (from the lemon-coloured pileus) *b*
P convex, obtuse, brassy-yellow, with white warts *St* hollow, white *A* large *Vo* imperfect *G* free, broad, white
 Woods Oct $4\frac{3}{8} \times 4\frac{1}{2} \times 1$
- 5 **A muscaria** Pers (from its former use as a fly-poison, *musca*, a fly) *a b c*
P scarlet or orange, rarely yellow, brown or liver-colour, marg slightly striate *St* white, rarely yellowish *Vo* bulb-like, large
 Poisonous, narcotic, acrid Woods birch, fir July-Nov $7 \times 9\frac{3}{4} \times 1$ in
 Compare brown form with 6
- 6 **A pantherina** Quel (from the markings of the pileus) *a b c*
P viscid, pale or dark brown, marg striate *St* whitish
 Poisonous Woods and pastures, frequent July-Oct $4 \times 5 \times \frac{1}{2}$ in
 Compare 11
- 7 **A excelsa** Gonn & Rab (*excelsus*, tall) *a b c*
P viscid, papilloso-wrinkled, brownish, marg striate *St* brownish-white
 Solitary Poisonous Taste not unpleasant Woods, chiefly beech and birch, frequent July-Oct $4\frac{1}{2} \times 5\frac{1}{2} \times \frac{3}{4}$ in
- 8 **A strobiliformis** Quel (from the resemblance of the scales of the pileus to the scales of certain fir-cones, *strobilus*, a pine cone) *a b c*
P white, then ashy-brown, covered with large sc, marg even *St* whitish
 Said to be edible Taste and odour at first slight, becoming disagreeable
 Open places in and near woods, rare Pileus sometimes 12 in in diam
 July-Sept $8 \times 6\frac{1}{4} \times 1\frac{3}{8}$ in
- 9 **A solitaria** Secr (from its solitary habit) *a b* White or buff-white
P marg even *St* brownish-white *Vo* forming an obconic bulb, base rooting
 Solitary Taste insipid On the ground, damp places Sept $6 \times 5\frac{1}{2} \times 1\frac{1}{8}$ in
- 10 **A rubescens** Pers (from the flesh becoming sienna-red when broken or bruised) *a b c*
P reddish-sienna, light to dark *St* pale sienna-red
 Edible, *Golmelle* of continental markets Taste not unpleasant, odour strong Woods common Commonly much eaten by larvæ There is a white variety June-Nov $5\frac{1}{2} \times 5 \times 1$ in Compare 14
- 11 **A spissa** Opiz (from the small crowded warts, *spissus*, crowded) *a b*
P smoky-brown or grey, with ash-coloured warts *St* concentric-squamulose, obconic at base, rooting, whitish
 Woods, mixed, uncommon July-Oct $4 \times 4\frac{1}{2} \times \frac{3}{8}$ in Compare 6
- 11a **A carlosa** Gill (from the carious stem) *a b*
P soft, even, brown, whitish-brown, or dark grey, unequally clad with thin, mealy, white patches and clouds *St* fragile,

- somewhat enlarged below, white, pale umber and brown, scaly at base *G* adnate then seceding and free
 Suspected poisonous Woods Sept $4\frac{1}{2} \times 5\frac{1}{2} \times \frac{1}{2}$ in Closely allied to 11
- 12 **A nitida** Fr (from the shining pileus, *nitidus*, shining) *a b*
P whitish, cream or whitish-buff, rarely yellowish or olive, warts brownish *St* squamulose, white to buff-white
 Woods Aug $4 \times 4\frac{1}{2} \times \frac{1}{2}$ in Compare 4
- 13 **A aspera** Pers (from the rough pileus) *a b c*
P whitish- or dusky-olive, crowded with small, pointed warts *St* white
 Poisonous Taste not unpleasant odour strong Woods, beech, fir, uncommon June-Nov $3 \times 3\frac{1}{2} \times \frac{1}{2}$ in
- 14 **A magnifica** Sacc (*magnificus*, splendid) *a*
P whitish, pallid-tan or sienna-brown, floccoso-spotted, marg sulcate *St* reddish-white *G* adnato-decurrent *Flesh* white, tawny when broken
 Woods, fir, beech, rare July-Oct $4 \times 4\frac{1}{2} \times \frac{1}{2}$ in Compare 10
- 15 **A arida** Gill (*aridus*, dry) *a* Greyish
P soon plane, marg sulcate *St* subglabrous, white *A* distant *G* adnexo-free or adnexed *Flesh* white
 Plantations, birch Sept-Oct $3 \times 3\frac{1}{2} \times \frac{1}{2}$ in
- 15a **A junquillea** Quel (from a fancied resemblance in the colour of the pileus in some examples to the flowers of the jonquil) *b*
P campanulate-convex, viscid, buff with paler marg, clad with the greyish remains of the V, marg deeply striate, white *St* hollow, villous-scaly, white, whitish or pale yellowish, pale olive at base *A* superior, membranous, partly appendiculate at marg of *P* in young examples *V*o marginate, at length torn, white, becoming brown at the edge *G* crowded, adnate with a tooth or adnexed, broader in front, white to faint yellowish ivory
 Woods Spring and autumn $4\frac{1}{2} \times 5\frac{1}{2} \times \frac{1}{2}$ Compare 20
- 16 **A megalodactyla** Sacc (from its tall stem, Gr *mega*, great, *dactylos*, a finger) *a c*
P reddish-grey or brownish, marg not sulcate *St* solid, white *A* large *G* free, at length red, not olive-tinged
 Odour strong Woods Oct-Nov $4 \times 5\frac{1}{2} \times \frac{1}{2}$ in Allied to 17 and to *Lepiota*
- 17 **A lenticularis** W G Sm, *Agaricus lenticularis* Lasch (from its lentil-shaped stem) *a*
P tan or buff, marg not sulcate *St* solid or slightly stuffed, tan-white *A* large *G* free, sometimes faintly olive
 Odour mouldy Plantations, mixed Oct $4\frac{1}{2} \times 6 \times \frac{1}{2}$ in Allied to 16 and to *Lepiota*

II AMANITOPSIS Roze

(From its relationship to *Amanita*)

Veil universal, clothly, distinct from the cuticle of the pileus. After its rupture, as maturity is reached, it remains as a volva at the base of the stem and as broken patches on the pileus. *Hymenophore*

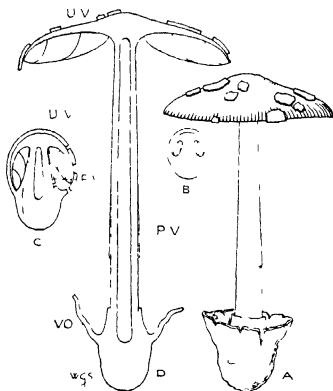


Fig. 11 — *Amanitopsis* Roze. One third natural size.
A perfect plant. B section of young example showing universal veil. C section of half-grown example showing rupture of universal veil. D section of mature example. UV universal veil. V put level adnate to stem. Vo volva.

distinct from the fleshy stem. *Pileus* convex, then expanded, not decidedly fleshy. *Stem* central, volvate, simple. *Gills* free, adnate in 20, white or whitish (Fig. 11).

All the species grow on the ground.

Species 18—20

18 **A. *vaginata*** Roze (from the volva *vagina*, a sheath) *a b c*

P brown, marg sulcate. *St* white or pale brown. *Vo* large, free, lax, sheathing within.

Said to be edible, but sometimes produces perspiration and illness. Tasteless or insipid when raw, but cooking brings out a strong meat like flavour, odour none. Woods, common. Sept–Nov. $4\frac{1}{2} \times 6\frac{1}{2} \times \frac{3}{8}$ in. There are several varieties, *moalis* W. G. Sm (*Amanita nivalis* Grev.) is white.

18a **A. *fulva*** W. G. Sm *Agaricus fulvus* Schæff (from the bright reddish-tawny colour) *b*

P sienna, mid dark, sometimes almost black, marg striate or sulcate. *St* squamulose, pale sienna. *Vo* large, free, lax, sienna.

Poisonous. Woods, birch. June–Sept. $3\frac{1}{2} \times 6\frac{1}{2} \times \frac{3}{8}$ in. *Amanita spadicea* Pers. is a brown form of this.

- 19 **A strangulata** Roze (from the transverse constrictions of the stem) *a b c*

P mouse-colour, brown or yellowish-brown, marg sulcate
St brownish-white *Vo* not large, adpressed to *St* *Flesh*
 whitish, tawny when broken

Taste sweet, odour none Woods, uncommon May-Oct $6\frac{1}{2} \times 8 \times \frac{3}{8}$ in

- 20 **A adnata** Sacc (from the adnate gills) *a b c*

P firm, not brittle, buff-yellow, marg not sulcate *St* minutely
 fibrillose, buff-white *G* crowded *Vo* not large, lax,
 irregularly torn, pubescent

Woods and plantations, oak, holly, uncommon Oct $3 \times 3\frac{3}{4} \times \frac{1}{2}$ in
 Compare 151

III LEPIOTA Quel

(From the scaly pileus and stem Gr *lepis*, a scale)

Vil universal, concrete with the cuticle of the pileus, breaking up in the form of scales granules or silkiness *Hymenophori* distinct from the fleshy stem *Pileus* never compact, often very thin, at first plane,

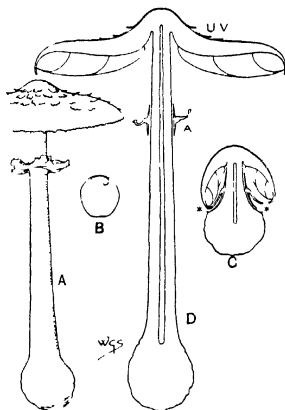


Fig 12 — *Lepiota praeura* Quel One quarter nat size

A perfect plant B section of young example showing universal veil C section of half grown example showing at ** rupture of veil D section of mature example showing at A annulus free from the stem UV remains of universal veil

then scaly, granular, silky, smooth or viscid *Stem* central, annulate, somewhat cartilaginous, firmer in texture than the pileus *Gills* free

or nearly so, except 46, 47, and 50 Spores normally white, sometimes yellowish, greenish or green (Fig 12)

The species grow mostly in rich grassy places, more often in fields than woods, some occur in stoves and greenhouses Nearly all are autumnal Some are edible Species 21—59

A Epidermis dry

a Proceræ Scales of pileus brown or brownish on a white ground Stem bulbous Annulus more or less movable Gills remote Edible The species are nearly allied, intermediate forms occur between all 21—25

b Clypeolaria Pileus and usually the stem scaly or covered with granules Annulus fixed Gills free Odour, except 29, strong, disagreeable, pungent, sometimes weak 26—37

c Annulosa Annulus superior, fixed, somewhat persistent, fugacious in 41 and 42 38—43

d Granulosa Pileus and lower part of stem covered with granules Annulus inferior Gills approaching stem, adnate in 47 44—48

e Mesomorpha Pileus dry, entire, not torn, not usually granular, small, slender 48a—54

B Pileus smooth, viscid

f Viscida 55—59

a Proceræ

21 L *procera* Quel (*procurus*, tall) *a b c*

P umbonate, finely scaly *St* minutely scaly *G* subremote *Flesh* unchanging white

Solitary or in troops Ldible Taste and odour pleasant, delicate Pastures, parks, gardens, heaths, among bracken, etc, common July—Oct $8 \times 10\frac{3}{4} \times \frac{1}{2}$ in

22 L *rachodes* Quel (from the ragged pileus, Gr *rakos*, a ragged garment) *a b c*

P subglobose, coarsely scaly *G* subremote, sometimes reddening when bruised *Flesh* changing to saffron-reddish when broken

Gregarious or caespitose Edible Taste and odour pleasant, strong, varying to rank Woods and hedges, fir plantations, greenhouses, common July—Dec $5\frac{1}{2} \times 6 \times 1$ in The form *puellaris* is smaller and shining white Bears the same relation to 21 as the horse mushroom does to the pasture mushroom There is a white variety

22a L *prominens* Sacc (from the prominent umbo) *a b*

P sphaerico-expanded, strongly and subacutely umbonate, sc imbricate on um, brownish or dull pale ochreous *St* abruptly bulbous at the base

Edible Fields Oct $8\frac{3}{4} \times 4\frac{3}{8} \times \frac{1}{2}$ in

22b L *permixta* Barla (from its mixed characters) *a*

P campanulato-convex, slightly subumbonate, then expanded, smooth then fibrillose, sc opaque, somewhat pale brown on a brownish-ivory ground, marg sublacerate, white *St* hollow,

- enlarged at base, irregularly scaly, colour as P *Flesh* becoming faintly rufous *A* membranous, fibrillose, lax *G* free, ventricose, crowded, ivory or faintly flesh-coloured
 Odour weak Hilly pastures Autumn $7 \times 4\frac{1}{2} \times \frac{1}{2}$ in With the mixed characters of 21, 22, and 23
- 23 **L. excoxiata** Quel (from the cracked membrane of the pileus) *a b c*
P semiglobose, slightly scaly, pale buff *A* less movable than in 21 and 22 *Flesh* unchanging white
 Said to be edible Taste and odour usually delicate and agreeable, but varying to rank and unpleasant Pastures and hedge sides, less common than 21 and 22 May-Oct $4 \times 4 \times \frac{3}{8}$ in
- 24 **L. gracilentia** Quel (from its slender stem) *a b c*
P subumbonate, slightly scaly, sc broad, adpressed, pale brown *A* slightly movable *Flesh* unchanging white
 Often cespitose Edible Pastures, under beeches, uncommon June-Nov $4 \times 7 \times \frac{3}{8}$ in
- 25 **L. mastoidea** Quel (from the resemblance of the pileus to a breast, Gr *mastos*) *a b c*
P acute umbonate whitish, sc minute, dark brown, varying whitish *St* brownish-white
 Woods Sept-Oct $2 \times 3\frac{1}{2} \times \frac{1}{16}$ in

b Clypolaria

- 26 **L. Friesii** Quel (after Elias Fries) *a b c*
P tomentoso scaly, rich dark brown *St* pale brown *A* superior *G* crowded, branched
 Odour heavy, strong Pastures, grassy places, gardens, sawdust, tree roots, under heaps Aug-Oct $4\frac{1}{2} \times 4 \times \frac{1}{8}$ in
- 27 **L. acutesquamosa** Gill (from the sharp pointed scales of the pileus) *a b c*
P lobed, ochreous buff-brown, sc dark brown *St* pale brown *A* large *G* free, but close to stem, branched
 Sometimes cespitose Said to be edible Taste mild, insipid, odour slight, mephitic, disagreeable Gardens, yards, hot beds, melon frames, church yards, greenhouses Sept-Nov $4\frac{1}{2} \times 4\frac{1}{2} \times \frac{1}{4}$ in
- 28 **L. Badhami** Quel (after C D Badham) *a b c*
P pale crimson-brown, sc small velvety, dark purple-brown *St* crimson brown or deep purple-brown below, paler above *G* at length black edged *Flesh* changing to saffron-crimson when broken
 Taste none or insipid, odour strong, usually unpleasant Under yews, hawthorns, hedges Sept-Nov $3\frac{1}{2} \times 5 \times \frac{3}{8}$ in
- 29 **L. emplastrum** Sacc (from the plaster-like scales) *a b*
P yellow-buff, sc large, smooth, brown *St* dull pale buff-yellow *Flesh* pink when broken
 Gregarious Taste and odour none Amongst grass under trees Oct $3 \times 3\frac{1}{2} \times \frac{1}{2}$ in

- 30** *L. MELEAGRIS* Quél (from its markings, as of the guinea-fowl, *meleagris*) *a b c*
P pale salmon, sc minute, almost black *St* bulbous-rooting, black-spotted, blackish at base *G* white or lemon-yellow
Flesh bright red when broken, reddish when dry
 Hothouses, greenhouses, on spent tan, rare May-Oct $2\frac{1}{2} \times 2\frac{1}{2} \times \frac{3}{16}$ in
- 31** *L. BIORNATA* Sacc (from its twofold ornamentation) *a c*
P whitish, sc dot-like, dark red *St* enlarged below, rooting, red-spotted *A* red-spotted at marg *Flesh* white, reddish in *St*, dark when dry
 In hot beds, stoves, melon and cucumber frames July $2\frac{1}{2} \times 4\frac{1}{2} \times \frac{5}{16}$ in
- 32** *L. hispida* Gill (from the rough pileus, *hispidus*, rough) *a b*
P velvety, rich brown *St* woolly-scaly, brown below *A* *Flesh* unchanging white
 Odour disagreeable, somewhat pungent of radishes Woods, chiefly pine
 July-Oct $3 \times 3 \times \frac{3}{8}$ in
- 33** *L. clypeolaria* Quél (from the shield-like pileus, *clypeus*, a shield) *a b c*
P floccoso-scaly, sometimes pale buff, rosy or rufescent *St* scaly, whitish *Flesh* white
 Odour weak or none Woods, stoves, greenhouses Oct-Nov $2\frac{1}{2} \times 3\frac{1}{2} \times \frac{1}{4}$ in
 Colour variable, sometimes wholly white Sometimes very small
- Var **alba** Bres (from the dead-white colour) *b*
P fleshy, convex, then expanded, broadly umbonate, silky-white, mid glabrous, marg fibriloso flocculose, then squamulose, becoming yellowish with age *St* equal or attenuate downwards, white, somewhat fuscous at base, white-floccose and yellow-spotted below the distant, floccose fugacious white *A* *G* free, crowded, white then ochreous *Flesh* white, somewhat yellowish in stem Often forming a spurious second *A*
 Edible On the ground Nov
- 33a** *L. felina* Karst (from the markings on the pileus, *felis*, a cat) *a b*
P subumbonate, black when young, then black-scaly on a white ground *St* white, often black-scaly below *A* large, often black dotted
 Woods, fir, amongst moss May-Sept $1\frac{1}{2} \times 3 \times \frac{3}{8}$ in
- 33b** *L. nigromarginata* Mass (from the black-edged gills) *a b*
P campanulato-expanded, subumbonate, sc umber on a pale sienna-ochre ground *St* hollow, attenuate upwards, smooth, salmon-white *A* persistent, membranous, white *G* broader in front, whitish, edge bordered with dark umber *Flesh* thin
 Amongst grass May $2 \times 2\frac{3}{4} \times \frac{1}{10}$ in Allied to **33**, and especially to **33a**, but differing from both in the dark edged gills

- 34 L. metulæspora** Sacc (from its obelisk-shaped spores, *metula*, an obelisk) *a b c*
P umbonate, white, um and sc pallid, marg sulcate *V* appendiculate *St* pallid or lemon-colour within and without
 Odour weak or none Woods, fir, amongst moss and leaves, rare Sept-Oct $1\frac{1}{2} \times 2\frac{1}{2} \times \frac{1}{8}$ in
- 35 L. cristata** Quel (from the scaly crested pileus) *a b c*
P white sc and mid bright dark brown *St* not scaly, brown at base Sometimes red when broken
 Suspected poisonous Taste strong, disagreeable, odour pungent, mephitic, sulphurous, or like radishes, but noxious Fields, orchards, gardens, lawns etc, common Aug-Nov $2\frac{1}{2} \times 3\frac{1}{2} \times \frac{1}{8}$ in Sometimes red when broken
- 36 L. erminea** Gill (from the ermine-like pileus) *a b c* Wholly white Very fragile
P silky
 Taste radish like or none, odour slight Grassy places Sept-Nov $2 \times 3\frac{1}{2} \times \frac{1}{8}$ in
- 37 L. MICROSPORA** Sacc (from the minute scales on the pileus, Gr *mikros*, small, *pholis*, a scale)
P white, sc radiating, erect, dark grey or black, marg sub-striate *St* white
 Stoves on coco nut fibre $\frac{1}{4} \times 1 \times \frac{1}{8}$ in

c. Annulose

- 38 L. Vittadini** Quel (after Carlo Vittadini, Italian mycologist) *a b*
 Wholly white or whitish
P rough with pointed sc *St* concentrically scaly *A* large
 Suspected poisonous Groves, pastures, downs June-Aug $5\frac{1}{2} \times 6\frac{1}{2} \times \frac{1}{8}$ in Allied to *amanita*
- 38a L. nymphaeum** Karst (from its beauty, as of a wood-nymph) *a b*
P umbonate, covered with large revolute scales, white *St* white, or faintly buff-stained below *G* crowded, ventricose, white
 Grassy places Oct $4 \times 4\frac{1}{2} \times \frac{1}{2}$ in
- 39 L. holosericea** Gill (from the silky pileus, Gr *holos*, entire, *serikos*, silken) *a b c* Buff-white Substance very soft
P fibrilloso-silky, then even *St* longitudinally fibrillose, then even *A* large
 Edible Odour none Gardens, cultivated places Sept-Oct $3\frac{1}{4} \times 2\frac{1}{4} \times \frac{1}{8}$ in
- 40 L. naucina** Quel (from the nut-like flavour, *nucinus*, of a nut) *a b c* Buff-white
P granular, marg not plicate, appendiculate with *V* *A* large
G becoming faintly rosy *Flush* white, usually becoming pale salmon or salmon brownish when cut
 Somewhat caespitose Edible Taste mild, pleasant, odour strong Fields, rare July-Oct $5 \times 3\frac{1}{2} \times \frac{1}{8}$ in Compare 790

- 41 **L. CEPÆSTIPES** Quél (from the onion- or chive-shaped stem, *cepa*, an onion, *stipes*, a stem) *a b c* White, pale lemon, or sulphur
P floccose, marg plicate *St* floccose *A* fugacious
 Gregarious Stoves, frames, pine pits, on tan and leaves, melon beds, etc., common Mar–Sept $2\frac{3}{4} \times 4\frac{1}{4} \times \frac{3}{8}$ in Sometimes becomes vinous or claret colour in drying
 Var *cretacea* Sacc *P* white, sc darker
- 42 **L. citrophylla** Sacc (from the lemon-tinted gills) *a c* Lemon-yellow
P sc rufous, um rich brown, marg not crenate or sulcate
St squamulose *A* fugacious *Flesh* and *G* sometimes change to green
 On the ground, rare Oct $1\frac{1}{4} \times 1\frac{3}{4} \times \frac{1}{8}$ in
- 43 **L. LICMOPHORA** Sacc (from the sulcate pileus a fancied resemblance to a winnowing fan, Gr *likmos*) *a b c*
P lemon-yellow *A* small *G* remote
 Hothouses, conservatories, etc., on the ground, on coco nut fibre Aug–Oct $2\frac{1}{2} \times 4\frac{1}{2} \times \frac{3}{8}$ in Resembles a *Bolbitus* or a yellow *Hygrophorus* Some times wholly sulphur white At one time regarded as a var of 41

d Granulosæ

- 44 **L. carcharias** Karst (from a fancied resemblance in the granules of the pileus to the teeth of a dog-fish, Gr *karcharias*) *a b c*
P Flesh-colour, gr darker *A* granulose
 Taste disagreeable, bitter or none, odour faint to strong of meal Woods, fir May–Nov $2 \times 1\frac{1}{4} \times \frac{1}{8}$ in Sometimes very small
- 45 **L. cinnabarina** Karst (from the cinnabar or vermilion colour) *a b c*
P granular, often coarsely so, marg fimbriate with V *St* granular below A, orange-vermilion
 Taste mild Woods, fir, grassy places Sept–Nov $2\frac{1}{2} \times 2\frac{1}{2} \times \frac{1}{8}$ in
Agaricus Terreis B & Br is a form of this species
- 46 **L. granulosa** Quél (from the granular pileus) *a b c*
P floccoso-granular, red-brown *St* granular-scaly, red-brown below *G* slightly adnexed, sometimes adnate
 Woods, fir, grassy places, very common July–Nov $2 \times 2\frac{1}{2} \times \frac{3}{8}$ in
 There is a white var *rufescens* Sacc, which becomes red in drying
- 46a **L. atrocrocea** Mass (*ater*, black, *croceus*, saffron) *a b*
P expanded, slightly depressed, bright salmon-orange, more or less covered with purple brown almost black granular flocci
St hollow, attenuate upwards, bright salmon-orange, salmon-brown-squamulose *A* fugacious *G* broadly adnate, salmon white *Flesh* thin, salmon-orange-brown
 Oct $1\frac{1}{2} \times 1\frac{1}{2} \times \frac{1}{8}$ in Allied to 46 and 47

- 47 L. amianthina** Karst (from its pure colour, Gr *amiantos*, unde-
filed) *a b*
P ochraceous, mid orange *St* squamulose, yellow *A* fugacious
G adnate or slightly decurrent, becoming light yellowish
Flesh wholly or partially yellow
 Woods, uncommon Aug-Nov $1\frac{1}{2} \times 2 \times \frac{1}{8}$ in A form occurs inter-
 mediate between this and **46**
 Var *Broadwoodia* Sacc *P* hemispherical, tomentose, yellow, *G* white
- 48 L. polysticta** Gill (from the many-spotted pileus, Gr *polus*,
 many, *stiktos*, spotted) *a b c*
P flesh, livid brownish, sc small, red-brown *A* fugacious
G faintly yellowish
 Taste insipid, odour none or mephitic, like **35** Grassy places, roadsides, etc.,
 uncommon Sept-Nov $2 \times 1\frac{1}{2} \times \frac{3}{8}$ in

c Misomorphæ

- 48a L. parvannulata** Gill (from the small annulus) *a*
P umbonate or gibbous, at first slightly pruinose, white to
 faintly yellowish *St* fibrillose below *A*, white *A* spreading,
 subsistent
 Pastures Autumn $\frac{3}{8} \times 1\frac{1}{2} \times \frac{1}{10}$ in
- 49 L. sistrata** Quel (from a fancied resemblance to a rattle,
sistrum) *a o*
P shining-atomate, whitish, becoming light yellowish or flesh-
 colour marg appendiculate with V *St* pruinose silky, white
A fibrillose
 Sandy ground amongst grass, gardens, etc Oct $1 \times 2 \times \frac{1}{8}$ in
- 50 L. seminuda** Gill (from the partially mealy pileus and stem,
semi, half, *nudus*, naked) *a b c* Whitish or flesh-coloured
P floccoso-mealy then naked, usually white *St* mealy and
 flesh-coloured below, naked and white above *G* adnate
 Odour none Woods May-Nov $\frac{3}{8} \times 1\frac{1}{2} \times \frac{1}{10}$ in
- 51 L. Bucknalli** Sacc (after Cedric Bucknall) *a c* White
P and *St* minutely granular, lilac
 Odour strong of gas tar Oct $1\frac{1}{8} \times 2\frac{1}{8} \times \frac{1}{8}$ in
- 52 L. mesomorpha** Gill (from its intermediate characters, Gr *mesos*,
 middle, *morphe*, form) *a b c* Whitish, yellowish, brownish
 or brown
P and *St* smooth *A* entire, persistent
 Woods Oct-Dec $1\frac{1}{8} \times 1\frac{3}{4} \times \frac{1}{16}$ in
- 53 L. MARTIALIS** Sacc (from its red colour) *a b*
P fibrillose, ochreous-red, marg striate *St* ochreous above,
 rufous below
 Conservatories, tree fern stems March $1\frac{1}{8} \times 1\frac{3}{8} \times \frac{1}{16}$ in
- 54. L. IANTHINA** Sacc (from the violet pileus, Gr *ion*, a violet) *a*
P fibrillose, mid darker, marg not striate
 Stoves March $1 \times 1\frac{1}{8} \times \frac{1}{8}$ in

54a L submarasmioides Sacc (from its slight resemblance to a species of *Marasmius*) *a b*

P umbonate, tough, arachnoid-squamulose, white to pale buff, um rufous, marg subplicate, cracking *St* at first arachnoid-pruinose, white *A* superior, movable *G* membranous-tough *Flesh* tough, rufous within towards base

Low ground at Worcester Sept $1 \times 2\frac{1}{2} \times \frac{1}{8}$ in

f Viscida

55 L medullata Gill (from its pith-bearing stem, *medulla*, pith) *a b*
White or grey-white

P umbonate, marg appendiculate with V *St* with a removable pith

Odour of radish or mephitic like 35 Woods, fir Aug-Oct $2 \times 3\frac{1}{2} \times \frac{1}{4}$ in
Compare 58 Resembles 1188 in stature, colour and viscosity of pileus

56 L glioderma Gill (from the clammy pileus, Gr *gloios*, clammy, *derma*, skin) *a c*

P brownish-red *St* dry, floccoso-scaly below, white or buff-white
Woods, thickets, pine, uncommon July-Sept $1\frac{1}{2} \times 3\frac{1}{2} \times \frac{1}{4}$ in

57 L delicata Gill (delicate) *a b*

P thin, subumbonate, rufescent, yellowish, pale rose or brownish
St dry, floccoso-scaly below, whitish

Taste and odour sometimes rank, like *Polytorus squamosus* Hothouses, woods, stumps, etc Sept $1\frac{1}{2} \times 1 \times \frac{1}{8}$ in

58 L illinita Qué! (from the glutinous pileus, *illinitus*, besmeared) *a b*

P umbonate white, varying to ochreous or clay-colour with a brown um *St* glutinous below *A* well developed on *St*, or appendiculate at edge of *P*

Woods Aug-Sept $2\frac{1}{2} \times 3\frac{1}{2} \times \frac{1}{16}$ in Compare 55 and 1188

59 L GEORGINÆ Sacc (after Georgina E Johnstone) *a b*

White, all parts becoming bright crimson when touched *P* viscido-pruinose Brown when dry

Taste and odour none On sphagnum in greenhouses May-Nov $1\frac{1}{2} \times 2\frac{1}{2} \times \frac{1}{4}$ in

IV HIATULA Mont

(From the furrows on the pileus, Gr *hiu*, to gape)

Hymenophore distinct from the stem *Val* universal, manifest in the granular or powdery covering, and sometimes in the appendiculate margin of the pileus *Pileus* fleshy to membranous *Stem* central, simple *Gills* free *Spores* normally white, sometimes greenish or green as in *Lepiota* (Fig 13)

Differing from *Lepiota* in the absence of an annulus, and agreeing in structure with *Pluteus*, *Pluteolus*, and *Pilosace*

Pileus somewhat fleshy

60, 60a

Pileus membranous, sulcate

60b, 60c

60 **H Eyrei** W G Sm, *Schulzeria Eyrei* Mass (after Rev W L W Eyre) *a b c*

P broadly umbonate, smooth, pallid, mid minutely granular ochreous, marg incurved, appendiculate with V *St* smooth,

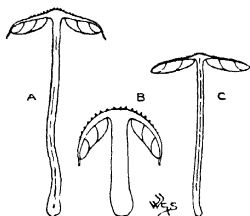


FIG. 1.—A section through *Hiatula Eyrei*
W G Sm B ditto *H. lycoperdoides* W
C Sm C ditto *H. Wynni* B & Br
One half natural size

even, glabrous, minutely mealy above, pallid *G* free, narrowed behind, thin, crowded then distant, pale green then deep bluish-green *Spores* same colour as *G*

Cæs pitious Taste and odour none Under spruce firs Autumn $1\frac{1}{2} \times 2\frac{1}{2} \times \frac{1}{2}$ in

60a **H lycoperdoides** W G Sm, *Schulzeria lycoperdoides* Cooke & Mass (from a resemblance in the pileus to certain species of *Lycoperdon* as 2063 and 2064) *a b*

P convex, then expanded, soft, buff-ivory, beset with pyramidal silky-fibrous dark brown warts marg appendiculate *St* solid, equal, minutely fibrillose, whitish faintly buff-ivory below *G* somewhat crowded, white *Flush* white, pale buff-brown under cuticle of *P*

Taste and odour none Under cedars Autumn $1\frac{1}{4} \times 1\frac{1}{2} \times 1\frac{1}{4}$ in

60b **H Wynni** B & Br (after Mrs Lloyd Wynne)

P campanulate then plane, subumbonate, pulverulent, white, mid brownish *St* hollow *G* free, at first very lightly adnexed, somewhat distant, with a shrivelled appearance as in 41 Has been observed emitting a greenish phosphorescent light

Stoves, on wood

60c **H grangei** W G Sm, *Schulzeria grangei* Eyre (from the original locality, Grange Park, Hants)

P flatly umbonate, cracking into dark green fibrous scales on a white ground *St* squamose, sq tipped with colour of *P* *G* widest in front, minutely denticulate

Cæs pitous On soil amongst beech leaves Nov $1\frac{3}{8} \times 2\frac{3}{8} \times \frac{1}{8}$ in

V **ARMILLARIA** Qué1(From the annulus, *ar milla*, a ring)

Veil universal, imperfect, remaining as minute, concrete warts or flocci on the pileus and as the scales of the stem *Hymenophore* confluent and homogeneous with the fleshy stem *Pileus* usually

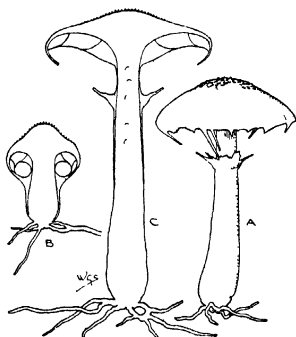


Fig 14 — *Armillaria mellea* Qué1 One third natural size A, perfect plant B section of young example showing universal veil C section of mature example

fleshy, the surface broken up into small scurfy warts or floccose scales *Stem* central, of the same substance with the pileus, annulate *Gills* sinuato-adnexed, adnate or decurrent *Spores* white, elliptical, smooth (Fig 14)

The species grow on the ground or on or about stumps

Must not be confounded with the last section of *Amanita*

Species 61—72

Stem furnished with a fugitive annulus *Gills* sinuato-adnexed

61—68

Stem furnished with a sometimes fugitive annulus *Gills* more or less decurrent

69—71

Stem annulate *Gills* adnate, varying rounded, sinuate or sinuato-decurrent

72

61 **A bulbiger** Qué1 (from the bulbous stem) *a b c*

P subumbonate, nearly smooth, pale yellowish or buff *St* strongly bulbous, whitish, longitudinally black fibrillose *G* becoming pale yellowish *Flesh* whitish

Taste and odour none Woods, pine Oct -Nov $3\frac{1}{2} \times 3\frac{1}{2} \times \frac{1}{2}$ in

62. **A focalis** Gill (from the thick clothly annulus, *focale*, a neck-cloth) *a b*

P umbonate, silky-fibrillose, rich yellowish-red, ochre or livid yellow *Flesh* pale yellowish-brown

Woods, pine, heaths, bare ground under old laurels Aug - Oct
 $4\frac{1}{2} \times 3\frac{1}{2} \times \frac{7}{8}$ in The dimensions of the variety called *Goliath* by Fries are
 $6\frac{1}{2} \times 6\frac{1}{2} \times 1\frac{1}{2}$ in

- 63 **A robusta** Gill (from its sturdy growth) *a b c*

P convex, nearly smooth, rich brown *St* attenuate downwards, not scaly, brownish-white *Flesh* hard

Odour of new meal, but nauseous Woods and plantations, pine, maple, rare Oct $2\frac{1}{2} \times 2 \times \frac{3}{4}$ in The form *major* is twice the size of *minor*, the form illustrated

- 63a **A caligata** Gill (from a fancied resemblance in the stem to a leg with a soldier's shoe, *caliga*) *b*

P compact, convex, then plane, tawny, weasel-colour, spotted with adpressed silky sq of the same colour *St* solid, zoned with brown sq below the persistent membranous *A* *G* emarginate, white

Odour strong On the ground in woods, pine Autumn $3\frac{3}{4} \times 3\frac{3}{4} \times 1\frac{1}{2}$ in
Agaricus causetta Barla, is a form of this species

- 64 **A aurantia** Quel (from its orange colour) *a b*

P convex, innato-squamulose, viscid *St* very scaly *Flesh* yellowish

Woods pine Oct $2\frac{1}{2} \times 3\frac{1}{2} \times \frac{1}{2}$ in

- 65 **A ramentacea** Quel (from a fancied resemblance in the pileus to wood-shavings, *ramenta*) *a c*

P floccose becoming revolute, whitish, then yellowish or brownish, sc and punctate mid darker *St* white, clad with adpressed brown sc below *A* *G* becoming yellowish *Flesh* white

Odour unpleasant Under pines, uncommon Sept $2\frac{1}{2} \times 2\frac{1}{2} \times \frac{5}{8}$ in
 Allied to *Lepiota*

- 66 **A hæmatites** Sacc (from the colour of the pileus, Gr *haima*, blood) *a*

P hemispherical, red liver-colour *St* liver-colour *Flesh* pale liver-colour, darker at base of *St*

Amongst fir leaves Nov $1\frac{1}{2} \times 1\frac{1}{2} \times \frac{1}{2}$ in Allied to *Lepiota*

- 67 **A Jasonis** Sacc (from a fancied resemblance in the pileus to the golden fleece of Jason) *a b*

P campanulate, granular, golden-yellow mid reddish *St* golden-yellow

Cæspitose Taste none, odour usually none, but sometimes strong Stumps
 Sept $2 \times 2\frac{1}{4} \times \frac{5}{8}$ in Resembling *Pholota*

- 68 **A constricta** Gill (from the compact substance, *constrictus*, compact) *a* White

P convex, silky-smooth *Flesh* becoming pale yellow when bruised

Odour of new meal Pastures, sunny and urine scorched places Sept - Oct
 $2 \times 1\frac{1}{4} \times \frac{3}{8}$ in

- 69 A. mellea** Qué! (from the honey-coloured pileus, *mel*, honey) *a b c*
P smoky yellow-olivaceous, usually dark-scurfy or squamulose, marg striate *St* often sulphur-yellow at base *A* usually large and white-floccose, sometimes small or absent *G* usually yellowish or pale salmon

Solitary, gregarious, or caespitose Taste acrid and disagreeable, odour strong, foxy Sold as an esculent in Continental markets, said by Mrs Hussey to be poisonous On or near stumps tree roots or root fibres, squared timber July-Nov $4\frac{1}{2} \times 5 \times \frac{1}{2}$ in Extremely variable Compare 222 *Collybia tabescens* Sacc is a ringless form

Var **versicolor** W G Sm, *Agaricus versicolor* With (from the change of colour in the stem and gills)

St bulbous, white then brown *G* yellow-white, then deep red-brown

Amongst grass July $1-4 \times 2 \times \frac{1}{2}$ in

Var **laricina** W G Sm *Agaricus laricinus* Bolt

P flesh-colour, glabrous marg smooth *G* white On larch

- 69a A. denigrata** Gill (from the very dark or blackish pileus *denigro* to colour black) *a*

P subviscid guttato-punctate marg even *St* solid, pallid-fuscous, whitish above *A* superior entire fugitive, white *G* pale brown, becoming darker

Solitary or gregarious On the ground, damp, shady places bases of trunks $2\frac{1}{2} \times 2\frac{1}{2} \times \frac{1}{2}$ in Sometimes confused with 560 which has brown, not white spores

- 70 A. citri** Gill (from the citron-colour of pileus) *a b*

P subumbonate, smooth, sulphur-yellow marg crenulate, becoming white *St* whitish, reddish-brown below

Cæspiosc Odour of new meal Stumps Sept $2 \times 3 \times 1\frac{1}{2}$ in

- 71 A. subeava** Gill (from the partially hollow stem *cavus*, hollow) *a*
 White

P umbonate, thin mid brownish

Woods, pine Nov $2 \times 3\frac{1}{2} \times \frac{1}{4}$ in Allied to *Lepiota*

- 72 A. mucida** Qué! (from the slimy pileus) *a b c* White

P hemispherical, radiato-wrinkled mid sometimes faintly brownish *St* externally cartilaginous *G* broad, mucid

On beeches Aug-Nov $3\frac{1}{2} \times 6 \times \frac{1}{2}$ in

VI TRICHOLOMA Qué!

(From the hairy, silky, or downy covering of the pileus, best seen in young examples Gr *thrix*, a hair, *loma*, a fringe)

Vel universal, imperfect, manifest in scales, flocci, fibrils or down, which adhere to the margin of the pileus in infancy, sometimes obsolete or nearly so *Hymenophori* confluent and homogeneous with the fleshy stem *Pileus* usually convex and fleshy, never umbilicate *Stem* central, fleshy, simple, with cartilaginous bark *Gills* sinuate, sometimes separating from the hymenophore (Fig 15)

- The species, except 91, 98 and 149, grow on the ground, the larger usually grow in upland woods, the smaller in pastures. Mostly autumnal, some late, section *Guttatæ* is usually vernal. Many have a pleasant odour of meal, a few have a disagreeable odour, some are edible, a few suspicious or poisonous. Species 73—152

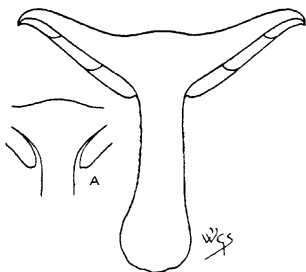


Fig. 15 — Section of *Tricholoma permatum* Quel.
One third natural size.
The separation of the stem from the hymenophore is shown at A.

- A** *Pileus* viscid when damp, pubescent, fibrillose or scaly, not scaly torn. *Stem* fibrillose. *Flush*, except 77, not hygrophanous.
- a* *Limacina*. *Pileus* fleshy. *Stem* solid, except 73a, 76, and 79. *Gills* not changing colour or becoming rufescent. 73—79. *Gills* changing colour usually to rufescent, commonly red-spotted. 80—89.
- b* *Genuina*. *Pileus* torn into scales or fibrils, not viscid or hygrophanous, moist in 94. *Taste* sometimes bitter and disagreeable. *Odour*, except 93, generally not unpleasant or none. *Gills*, except 94, not changing colour, or becoming rufous or black-spotted. 90—95. *Gills* rufescent or becoming grey, usually marked with rufous or blackish spots. 96—101.
- c* *Rigidæ*. *Pileus*, except 106, punctato-granulate or broken up into smooth squamules, not viscid, scaly-floccose or fibrillose. *Flush* in stout species cartilaginous-hard, in thin species fragile. *Odour* of the majority of the species unpleasant. *Gills* unchanging white or becoming hyaline-whitish, except 103, which often becomes reddish. 102—108. *Gills* changing colour, rufescent, or becoming ashy or spotted. 109—112.

- d Sericellæ Pileus* smooth, dry, silky, never scaly, moist or viscid, flocculose in 121
Gills broad, somewhat thick, subdistant, except 115 *Odour* strong, fetid 113—116
Gills narrow, thin, crowded *Odour* none, except 119 117—121
- B** *Pileus* smooth, moist in wet weather, not viscid, downy or scaly.
Flesh soft, spongy, watery, hygrophanous
- e Guttatæ Pileus* thick, fleshy *Stem* obese, solid *Odour* pleasant Usually vernal, often growing in troops, or cæspitose or forming large rings
Gills whitish 122—124
Gills changing colour, rufescent or smoky 125—127
- f Spongiosæ Pileus* obtuse, smooth, moist, except 133, not hygrophanous *Gills* sinuato-decurrent Often late autumnal Usually growing in troops Must not, on account of the sinuato-decurrent gills, be confounded with *Chitochæ*
Gills whitish 128—134
Gills changing colour 135—142
- g Hygrophanæ Pileus* hygrophanous, changing colour on parting from its absorbed water
Gills white or faintly brownish, unspotted 143—148
Gills becoming violet, grey, or smoky 149—152

a Limacinæ

- 73 T equestre** Quel (from its being the handsomest of the group, *eques*, a knight) *a b c*
P gibbous then expanded, sulphur-olive or ochraceous streaked olive-brown or olive-purplish *St* sulphur olive, sulphur-white within *G* sulphur-olive
Taste pleasant or none, *odour* none Woods, fir, uncommon Aug. -Nov
 $4 \times 2\frac{1}{2} \times 1$
- 73a. T coryphæum** Gill (from its position as type of group, Gr *koryphaia*, a leader)
P white, shaded sulphur-white or sulphur, punctato-virgate with dull purplish scales *St* equal to oblique, white, shaded sulphur-white *G* crowded, white, edged or clouded pale sulphur
 Under beeches Nov $2\frac{1}{2} \times 4 \times 8$ in
- 74 T sejunctum** Quel (from the gills, separated from the stem, *sejunctus*, separated) *a b c*
P at first umbonate, buff or yellow, streaked brownish or purple-sooty *St* white, clouded pale yellow *G* white
Taste disagreeable, bitter, *odour* strong of rancid meal Woods, chiefly pine, uncommon Sept -Nov $4\frac{1}{2} \times 4\frac{1}{2} \times \frac{7}{8}$ in

75 **T portentosum** Quél (from its variability, *portentosus*, strange)
a b c

P unequal, slaty brown, black-fibrillose, mid darker *St* white or greyish *G* somewhat distant, white, pale grey or yellowish

Solitary, gregarious or cæspitose Taste mild or somewhat nauseous, odour none Woods, fir, frequent Aug-Nov $4\frac{1}{2} \times 3\frac{1}{2} \times \frac{1}{2}$ in Pileus sometimes 8 in in diameter Sometimes springing from an involved mass of thick cord like mycelium

76 **T fucatum** Gill (from the dyed appearance of the pileus, *fusco*, to dye) *a b c*

P yellowish or palest yellow, streaked brownish-buff or pale slate *St* yellowish, sometimes white above and below, grey or blackish-squamulose or fibrillose *G* whitish

Woods, chiefly pine, frequent Aug-Nov $3\frac{1}{2} \times 3\frac{1}{2} \times \frac{1}{2}$ in

77 **T quinquepartitum** Gill (from the pileus being supposititiously five-lobed the character does not however belong to this species) *a b* Somewhat hygrophanous

P yellowish-buff, mid darker, unstreaked *St* ivory-white, not squamulose *G* white

Taste mild, odour none Woods, pine, rare Oct $3\frac{3}{4} \times 4\frac{1}{2} \times \frac{1}{2}$ in

78 **T resplendens** Karst (from its brightly shining appearance) *a b*
Shining white

P sometimes very faintly stained yellowish or brownish

Gregarious Taste and odour pleasant Woods, beech, hazel, &c, frequent Sept-Oct $2\frac{1}{2} \times 2\frac{3}{8} \times \frac{1}{2}$ in Resembles 1188 in general appearance

79 **T spermaticum** Gill (derivation obscure) *a b* White

P sometimes cream or faintest ochre-white *G* coarsely notched

Poisonous Odour strong like tallow, varying to cucumber, but stinking Woods, fir Oct $3\frac{1}{2} \times 2\frac{1}{2} \times \frac{1}{2}$ in Resembling 78

80 **T colossum** Quél (from its great size) *a b*

P rich brown, paler or whitish at margin *St* bulbous, reddish-brown with a white floccose apex *G* white or dull flesh-colour *Flesh* hard, changing to tawny when broken

Odour none or cheese like Under Scotch firs, elms Oct $8 \times 4\frac{1}{2} \times 1\frac{3}{4}$ in Resembling 1490 in size and colour A form occurs apparently between this and 83 Boudier considers this species to belong to *Armlaria*

T nictitans Gill (from its sporadic appearance, *nutitans*, winking)
a b

P rich brown, mid darker *St* enlarged below *G* yellowish

Taste usually mild or sweet, slightly of mushrooms sometimes disagreeable, but not bitter, odour none or sweet Woods, rare Sept $5\frac{1}{2} \times 3\frac{1}{2} \times \frac{1}{2}$ in Resembling 1458 in form, colour and viscosity

T fulvellum Gill (from the tawny pileus *fulvus*, tawny) *a c*

P dotted-winkled, rich tawny-brown, mid darker *St* not enlarged below *G* white

Odour none Woods, beech Oct-Nov $3\frac{1}{2} \times 3 \times \frac{1}{2}$ in

83. **T. flavobrunneum** Quél (*flavus*, light yellow, *brunneus*, brown) *a b c*

P streaked, tawny or rich brown, mid darker *St* slightly enlarged below, rich brown or brownish *G* light yellowish *Flesh* white or partially pale yellowish

Gregarious, caespitose or in troops. Odour strong of rank meal or cheese. Deciduous woods, especially birch, beech, amongst gorse. Sept-Nov $3\frac{1}{2} \times 2\frac{1}{2} \times \frac{3}{4}$ in. A form occurs apparently between this and 80

84. **T. albobrunneum** Quél (*albus*, white, *brunneus*, brown) *a b c*

P streaked, rich ochreous to pale brown, mid darker *St* not enlarged below, yellowish-brown, white above and below *G* white *Flesh* permanently white

Said to be edible. Taste usually mild, sometimes bitter, odour none. Plantations, fir. Sept-Dec. $4 \times 2 \times \frac{1}{2}$ in.

85. **T. ustale** Quél (from its scorched appearance, *ustus*, burnt) *a b c*

P dotted-wrinkled, rich- or purple-brown, becoming black brown, unstreaked *St* slightly attenuate downwards brownish white *G* white *Flesh* sometimes changing to faintest rose

Odour none. Woods, chiefly pine. rare. Aug-Nov. $3 \times 2\frac{3}{4} \times \frac{3}{8}$ in. Intermediate between 83 and 86

86. **T. pessundatum** Quél (from the foot-trodden appearance in Sterbeck's illustration) *a b c*

P guttato-spotted, not streaked, brown *St* equal, pale ochre brown *G* white

Said to be edible, but suspected poisonous. Taste mild. odour strong of new meal. Woods, fir. rare. Sept-Nov. $4\frac{1}{2} \times 2\frac{1}{2} \times 1$ in.

87. **T. stans** Gill (from its standing distinct from 86) *a b c*

P reddish brown *St* equal, white *G* white *Flesh* reddish under cuticle

Woods. Sept-Oct. $3\frac{1}{2} \times 4 \times 1$. Compare 106

88. **A. Russula** Gill (from its resemblance to certain of the red *Russule*) *a b c*

P rose, or crimson granulate, or rose liver-purplish, variegated rose and ivory-white *G* white, palest rose or clouded as *P*

Eaten in Austria. Taste and odour mild, pleasant. Under trees. Oct. $4\frac{1}{2} \times 2\frac{1}{2} \times \frac{1}{2}$ in. Perhaps allied to 1192

89. **T. frumentaceum** Quél (from its odour of meal, *frumentum* corn) *a c*

P whitish-buff, mid brownish-buff *St* equal *G* white *Flesh* white

Odour strong of new meal. Sept-Oct. $3\frac{1}{2} \times 1\frac{1}{2} \times \frac{1}{2}$ in.

b. Genuina

90. **T. rutilans** Quél (*rutilus*, to be reddish) *a b c*

P dark purple on a yellow ground *St* enlarged below, light sulphur, purple-floccose *G* bright yellow *Flesh* sulphur to yellow

Suspected poisonous. Odour none. Woods, pine, birch, base of tree common. Aug-Nov. $5\frac{1}{2} \times 4\frac{1}{2} \times 1$ in. *Pileus* sometimes 7 in. or more

- 91 **T variegatum** Gill (from the variegated pileus) *a b*
P reddish-purple on a yellow ground *St* slightly enlarged below, reddish-purple-floccose on a yellowish-white ground
G yellowish-white *Flesh* whitish to palest sulphur
 Rotten wood June-Oct $2\frac{1}{2} \times 2\frac{3}{4} \times \frac{3}{8}$ in Resembling a small, attenuate, dull coloured state of 90
- 92 **T luridum** Quel (from its lurid colour) *a b c*
P whitish-brown-livid, or ashy-yellowish, mid darker *St* white
G very crowded, whitish
 Taste mild odour of new meal Woods, pine, etc., common Sept-Oct $2\frac{1}{2} \times 2\frac{1}{2} \times \frac{1}{2}$ in Compare 74 with distant gills and 103 with odour of soap
- 93 **T guttatum** Gill (from its spotted pileus *gutta*, a drop) *a*
P pale buff, mid darker, clad with large brown granular sq., marg remotely sulcate, white or faint rose-floccose *G* white
Flesh white, pale rose under cuticle and at base of *St*.
 Somewhat crepitose Taste and odour acid bitter Woods Oct $3 \times 2 \times \frac{3}{8}$ in Resembling 99
- 94 **T columbetta** Quel (from its dove-colour, *columba*, a dove) *a b c*
P moist, white or faintly clouded buff-white, mid sometimes brownish-grey *G* separating from stem
 Solitary Said to be edible Taste mild, odour none Pastures, woods, birch, fir, beech Aug-Nov $4 \times 3 \times \frac{3}{4}$ in Sometimes red or blue spotted, sometimes evading a deep bright permanent violet stain
- 95 **T scalpturatum** Quel (from its scratched appearance, *scalpto*, to scratch) *a c*
P livid- or grey-brown on a whitish ground *St* and *Flesh* whitish *G* white to yellowish
 Woods, fir, uncommon Sept-Nov $3\frac{1}{2} \times 3\frac{1}{2} \times \frac{1}{2}$ in Differs from 101 in the yellowish, not grey gills
- T imbricatum** Quel (from the scales of the pileus, *imbricatus*, overlapping) *a b c*
P rich reddish- or crimson-brown *St* crimson-brown, white-pulverulent above *G* crowded, at first white
 Scattered or in troops Said to be edible Taste when raw disagreeable Woods, pine, oak Sept-Nov $4\frac{1}{2} \times 2\frac{1}{2} \times \frac{1}{4}$ in
- T vaccinum** Quel (from the reddish-brown colour, *vacca*, a cow) *a b c*
P warm-rose to crimson-brown *St* crimson-brown, not white above *G* somewhat distant, separating from *St*
 In troops Taste bitter, disagreeable, odour strong, not unpleasant Woods, fir Aug-Oct $2\frac{3}{4} \times 2\frac{1}{2} \times \frac{3}{8}$ in
- T immundum** Quel (*immundus*, discoloured) *a b c*
P grey-buff *St* greyish-buff *G* pearly-grev
 Cæspitose Taste bitter, disagreeable, odour mealy to offensive On sheep-dung, rare Sept-Oct $3 \times 2\frac{3}{4} \times \frac{3}{8}$ in

- 99 **T inodermum** Gill (from the fibrils of the pileus, Gr *is*, *inos*, a nerve, *derma*, the skin) *a b*

P pink-buff, mid brownish, brown-scaly *St* white, then partially reddish, mealy above *G* white, red-spotted when bruised *Flesh* pale pink-buff

Damp, dense pine woods $2\frac{3}{4} \times 2\frac{1}{2} \times \frac{1}{2}$ in Resembling 93

- 100 **T gausapatum** Quel (from the shaggy pileus, *gausapa*, a shaggy woollen cloth) *a b*

P bullate, obtuse, wavy, woolly-fibrillose, somewhat dark-ashy-grey, edge at first incurved, white-woolly *St* solid, white, fibrillose *G* adnate, pale grey

Taste mild, odour none Woods, grassy places Sept-Oct $3 \times 2 \times \frac{5}{8}$ in

- 101 **T terreum** Quel (from its earthy colour, *terra*, the earth) *a b c*

P umbonate, dark purplish-grey or pale slate *St* grey, white-piunose above *G* white to grey

Solitary, gregarious or crepitate Taste slightly rancid odour none Woods, chiefly beech, pine, common Aug-Nov $3\frac{1}{2} \times 2\frac{3}{8} \times \frac{5}{8}$ in Often becoming black in drying Sometimes springing from rose coloured mycelium or from rhizomorphoid threads Var *osirubens* Mass *G* red edged Var *agrarium* Mass Wholly silvery whitish Var *vincens* W *G* Sm, *Agaricus sculpturatus* Fr var *evirens* Cooke Becoming yellowish green Var *atrosquamosum* Mass Black, scaly Var *chrysis* Mass Becoming yellow

- 101a **T squarrulosum** Bres (*squarrulosus*, scaly) *a*

P becoming striatohairy, fuscous to lurid tan mid black-squamulose *St* broadly striato-rough, dark grey-umber on a pale dull salmon ground *G* grey-white as in 101

Under oaks, hazel Sept $3\frac{1}{2} \times 3\frac{1}{2} \times \frac{5}{8}$ in

- 101b **T horrible** Rea (*horribilis*, rough) *a*

P dark-fuscous-squamulose, the ground pink at maturity *St* enlarged below, white, smooth, hollow *G* emarginate, crowded, marg uneven, whitish, becoming pinkish *Flesh* white, becoming pinkish and fuscous-spotted

Under beech $4\frac{5}{8} \times 3\frac{3}{4} \times 1$ in

c Rigida

- 102 **T macrorhizum** Sacc (Gr *makros*, long, *rhiza*, a root) *a b*

P smooth, then tessulato-cracked, ochreous-buff *St* whitish-ochreous *Flesh* slightly yellowish

Taste mushroom like or unpleasant, odour strong like 113, cadaverous, like *Lilium auratum*, like carrion or fetid sweet, varying pleasant to unpleasant Nov $4\frac{1}{2} \times 5\frac{3}{4} \times 1\frac{1}{2}$ in Pileus sometimes 8 in or more in diam with a long rooting stem in proportion

- 103 **T saponaceum** Quel (from its soapy odour) *a b c*

P smooth, then olive-brown scaly *St* pale yellowish-grey, often minutely black scaly *G* distant, yellowish-grey-white

Woods, hedgesides, etc, amongst leaves, common Aug-Nov $3\frac{1}{2} \times 2\frac{3}{4} \times \frac{5}{8}$ in Often reddish when bruised Must not be confounded with the scentless 112b

104 T cartilagineum Qué! (from its gristly substance) *a c*

P black-dotted on a brownish ground, mid darker *St* smooth, whitish *Flesh* white *G* crowded, white or pale greyish

Odour none Grassy places in woods and pastures, amongst pines, uncommon Aug-Nov $3\frac{1}{2} \times 2\frac{1}{4} \times \frac{5}{8}$ in Compare 112a An abnormal growth of this, 4 ft 1 in \times 2 ft 1 in, with many pilei, raised the pavement of Goswell Road, London, in 1865

105 T tenuiceps Mass (from the thin flesh of the pileus, *tenuiceps*, thin-headed) *a*

P conico-hemispherical, granular, dark smoky-brown *St* punctato-granulose, ochreous-white *G* subdistant, ventricose, white

Solitary or in clusters of two or three, springing from thick cord like mycelium Amongst grass under trees July $2\frac{1}{2} \times 1\frac{3}{4} \times \frac{1}{2}$ in Resembling 227 (var *repens*)

106 T loriceatum Gill (from the leathery cuticle, *lorica*, a leather cuirass) *a c*

P unusually lobed, moist or subviscid, the thick cuticle peeling off, rich brown, marg paler *St* reddish-buff *G* whitish straw-colour

Odour strong, pleasant or nauseous Woods, mixed Sept $2\frac{3}{8} \times 2\frac{1}{4} \times \frac{1}{2}$ in Compare with 87

107 T atrocinereum Quel (*ater*, black, *cinereus*, ash coloured) *a*

P ashy-brown or blackish, mid darker *St* whitish *Flesh* hygrophanous

Odour of new meal Grassy ground Oct $1\frac{3}{4} \times 1\frac{1}{4} \times \frac{1}{2}$ in

108 T cuneifolium Gill (from the wedge-shaped gills, *cuneus*, a wedge, *folium*, a leaf) *a b c* Fragile

P smooth, brittle, often concentrically cracked, rich brown to livid *St* slightly attenuate downwards, splitting, pale brownish, white above *G* distant

Said to be edible Taste disagreeable, rancid, odour strong of new meal Pastures, frequent Sept-Nov $1\frac{3}{4} \times 1\frac{1}{4} \times \frac{5}{8}$ in *Agaricus cinereorimosus* Batsch, a form of this, is British

109 T crassifolium Sacc (from its thick gills *crassus*, thick, *folium*, a leaf) *a*

P ochraceous or somewhat buff, mid umber *St* pale ochreous

Gregarious or subcaespitose Odour strong Woods, fir, uncommon Oct $2\frac{1}{2} \times 1\frac{1}{4} \times \frac{5}{8}$ in

109a T sudum Qué! (*sudus*, dry) *a*

P ashy-rufous or blackish-umber, marg paler *St* punctate with minute squamules, pallid, shaded rufous *G* whitish, edge rufescent

Woods Amongst grass $3\frac{3}{4} \times 3\frac{1}{2} \times \frac{5}{8}$ in Compare 131

- 110 T tumidum** Gill (*tumidus*, swollen) *a b*
P irregular, often cracked, ashy-livid, mid darker *St* often swollen and attenuate below, white, often red-tinged within
 Taste and odour weak, not unpleasant Woods, pine, moist places Oct - Nov $3\frac{1}{2} \times 3\frac{3}{4} \times \frac{5}{8}$ in Var *Kæthi* Sacc (after the Rev Dr J Kæthi) the whole plant becomes partially rufescent
- 111 T murinaceum** Gill (from its mouse-colour, *mus*, a mouse)
a b c Ashy- or lilac-greyish
P cracked, streaked grey-silky-scaly, sc sometimes blackish
St more or less scaly like *P* *G* grey
 Taste very disagreeable, bitter, odour strong, unpleasant, sometimes nitrous
 Open woods and pastures, rare Aug - Nov $4\frac{1}{2} \times 3\frac{1}{2} \times \frac{3}{4}$ in Must not be confounded with 1244
- 111a T hordum** Quel (perhaps from *hordeum*, barley, on account of the hard substance)
P subumbonate, soon cracking, in dry weather squarrose, mouse-grey, mid darker *St* glabrous, whitish, shaded greyish *G* subdistant, white to greyish
 Taste mild, odour none Under beeches $3\frac{1}{2} \times 4\frac{3}{8} \times \frac{5}{8}$ in
- 112 T virgatum** Gill (from the streaked pileus, *virga*, a stripe) *a c*
P pale ashy-grey, finely-streaked black-fibrillose *St* subbulbous
G crowded, becoming hoary *Flesh* cinereous-whitish
 Usually solitary Taste when young very bitter, becoming tasteless, odour usually none, sometimes sweet like mchilot Woods, mixed, oak, pine Aug - Oct $3\frac{1}{2} \times 3\frac{3}{8} \times \frac{1}{2}$ in
- 112a T elytroides** Karst (from the appearance of the pileus, like the wing-cases of certain beetles, Gr *elytron*, a beetle's wing-case, *eidos*, appearance) *a b*
P expanded, obtuse, scabrous, with minute linear black-brown scales on a yellowish or pale brown ground, caused by the cracking of the cuticle *St* soft, densely brownish-fibrillose
G ashy-grey or brownish-white *Flesh* white
 Odour faint of new meal Oct $3\frac{1}{2} \times 3\frac{1}{2} \times \frac{5}{8}$ in Compare 104
- 112b T opieum** Gill (*opicus*, clownish) *a*
P somewhat thin, obtusely umbonate, even, soon squamulose, at length unusually upturned and split, very dry, becoming minutely squamulose, grey *St* stuffed, fibrillose, becoming almost glabrous, pallid to greyish *G* arcuato-reflexed, somewhat thick, hoary *Flesh* greyish
 Odour none Woods, pine, amongst moss $1\frac{1}{2} \times 3 \times \frac{1}{4}$ in Must not be confounded with 103, which smells strongly of soap
- d. Sericella*
- 113 T sulphureum** Quel (from its sulphur-colour) *a b c*
P sulphur-yellow, sometimes rufescent-clouded *St* striate, sulphur *G* light sulphur *Flesh* sulphur
 Gregarious Probably poisonous Odour strong and penetrating of gas-tar, fetid, like *Hemerocallis flava*, sometimes pleasant Woods, mixed, common Aug - Nov $3\frac{1}{2} \times 4 \times \frac{1}{2}$ in

- 114 T bufonium** Gill (from a fancied resemblance in the pileus to a toad's back, *bufo*, a toad) *a b c*
P dotted-wrinkled, yellowish-tan or buff, mid rufescent
St flocculose, yellow or yellow rufescent *G* yellow-tan
 Odour same as 113, but fainter, sometimes not unpleasant Woods, under pines Sept-Nov $3 \times 2\frac{1}{2} \times \frac{1}{2}$ in
- 115 T lascivum** Gill (from its many affinities, *lascivus*, playful, wanton) *a b*
P not umbonate, becoming depressed, cream to pale buff, mid darker *St* ivory-white *G* separating from stem, crowded, white
 Taste strong, disagreeable, pungent, somewhat acid, odour like gas tar, varying to fried mushrooms, but disagreeable, more or less like 113
 Mixed woods, frequent May-Nov $3\frac{1}{2} \times 2\frac{3}{4} \times \frac{1}{2}$ in Not unlike 1188 in general appearance
- 116 T inamœnum** Gill (from its unpleasant odour, *inamœnus*, unpleasant) *a c*
P subumbonate, ivory-white *G* white or buff-white *Spores* ochre-white
 Suspected poisonous Odour, especially when young, as in 113 but stronger and more fetid Woods, amongst pine leaves Sept-Nov $2\frac{1}{2} \times 3\frac{1}{2} \times \frac{3}{8}$ in
 Sometimes confounded with 115 Resembling 1188 in general appearance
- 117 T cerinum** Quel (from its colour, like yellow wax, *cera*, wax) *a c*
P yellow, then fuscous-brown *St* yellow, base often brownish, or wholly fuscous *G* deep yellow
 Pine woods, lawns June-July $1\frac{1}{2} \times 2\frac{1}{2} \times \frac{1}{4}$ in
- 118 T fallax** Sacc (from its resemblance to a dwarf form of 114 or 117, *fallax*, deceitful) *a*
P yellow, mid sometimes rufous *St* yellowish *G* white, then yellowish
 Under firs Autumn $1\frac{1}{2} \times 1 \times \frac{3}{16}$ in
- 118a T onychinum** Gill (*onychinus*, of the colour of the human nail) *a*
P fleshy, subumbonate, convexo-plane, glabrous, purplish or sienna-umber, marg striate, orange sienna or silky-purple
St solid, almost equal, fibrillose-silky, pallid or dull orange-sulphur, reddish or sienna pulverulent above, brownish below
G rounded, at length free, crowded, yellow *Flush* yellowish-white, or pale olive-sulphur
 Amongst pines, mossy places Autumn $2\frac{3}{4} \times 3 \times \frac{1}{4}$ in
- 119 T ionides** Quel (from its violet colour, Gr *ion*) *a c*
P lilac or violaceous, sometimes livid-reddish *St* pale lilac
Flush lilac under membrane of *P*, and at base of *St*
 Odour faint, agreeable, like 1280 Woods moist places, open pastures, under firs, cedars Aug-Nov $2\frac{1}{2} \times 2\frac{1}{2} \times \frac{1}{4}$ in Resembles 298 in general appearance

- 120 T carneum** Quel (from its flesh-colour, *caro*) *a b c*

P becoming whitish *St* attenuate downwards, paler than *P*
G white *Flesh* white

Fields and waysides in woods, frequent May-Oct $1\frac{1}{2} \times 1\frac{1}{2} \times \frac{1}{4}$ in

- 121 T cælatum** Gill (from its umbilicus, chiselled out, *cælum*, a chisel) *a b c*

P becoming flocculose, brownish, then pale grey *St* pale brown *G* dull white or grey

Woods, downs April-Sept $1\frac{1}{4} \times 1\frac{1}{4} \times \frac{3}{16}$ in Resembling certain species of *Omphalia*

e Guttatæ

- 122 T gambosum** Gill (from the hoof-like pileus *gamba*, a hoof) *a b c* Buff-white

P hemispherical *G* crowded

Solitary or 2-3 connate in large rings or troops Edible if gathered in dry weather and not rank smelling Odour strong of new meal, pleasant, varying to rank as in *Polyporus squamosus* Fields and downs April-July $3\frac{3}{8} \times 2 \times 1\frac{1}{2}$ in "St George's mushroom" Must not be confounded with 133 or the solitary form of 123

- 123 T albellum** Quel (*albus*, white) *a b c*

P conical, then convex, pale dull yellowish-white *St* ovato-bulbous, colour as *P* *G* very crowded

Solitary or connate Taste pleasant, odour weak Woods April-Oct Solitary— $3 \times 2 \times 1$ in Connate— $1\frac{3}{8} \times 1\frac{1}{2} \times \frac{1}{2}$ in The connate form must not be confounded with connate 153

- 124 T boreale** Karst (from its growing chiefly in northern countries, *borealis*, northern) *a b c*

P subumbonate, flesh-colour *St* attenuate downwards, pale flesh-colour *G* crowded

Said to be edible Odour of fresh meal Grassy places $2\frac{1}{4} \times 2\frac{1}{4} \times \frac{1}{2}$ in Not unlike 648 in general appearance

- 125 T amethystinum** Gill (from its colour) *a*

P livid lilac or grey-purple *St* livid

Woods, pine Sept $2\frac{3}{8} \times 2 \times \frac{1}{2}$ in

- 126 T tigrinum** Quel (from the markings on the pileus) *a b*

P pallid brown, spotted-brown *St* white

Solitary or cæspitose Odour usually none, sometimes fetid Woods, fir, open places, rare June-July Allied to 129 and 142

- 127 T pes-capræ** Quel (from a fancied resemblance in the stem to a goat's foot, *pes-capræ*) *a c*

P umbonate, fragile, grey or brownish, marg cracked *St* brownish-white *G* becoming ashy, rarely olive

Odour of meal Open places, under oaks Oct-Nov $1\frac{1}{2} \times 2\frac{3}{8} \times \frac{3}{8}$ in Var *multiforme* Mass Smaller and flesh of pileus thinner than type, gregarious

*f Spongiosæ***128 T Schumacheri** Gill (after Christian Friedrich Schumacher) *a b*

P livid grey or faint brownish-lilac, mid darker, marg exceeding *G* *St* ivory-greyish or white, base villous *G* subdecurrent, very crowded, white or brownish-white

Woods, hothouses Autumn $3\frac{3}{8} \times 3\frac{3}{8} \times \frac{3}{4}$ in Not unlike 153

128a T amicum Gill (from its being well known, *amicus*, a friend) *a*

P fleshy, convexo-expanded, broadly umbonate, even, glabrous, dusky- or olive-brown, membrane of *P* extending beyond *G* *St* solid, firm, bulbous, white or slightly suffused with colour of *P* *G* rounded, almost free, broad, distant, white *Flesh* white

Solitary Odour none Amongst pines, mossy places Autumn $3 \times 3\frac{1}{2} \times \frac{1}{2}$ in

129 T circumtectum Sacc (from the encircling margin of the pileus, *circumtectus*) *a b*

P olive or dusky, mid tawny *St* white *G* emarginate, distant

Taste mild, odour none Sept $2\frac{1}{2} \times 1\frac{3}{8} \times \frac{3}{4}$ in Elastic Compare 126 and 142

130 T patulum Quel (from the spread out pileus, *patulus*) *a b c*

P ivory-brown to pale, dull lavender-brown or whitish, becoming pale yellowish *St* white *G* rounded, almost free to distant, whitish

Solitary, caespitose or in troops Odour none Woods, under birches Only appearing in very wet seasons Oct $4 \times 3 \times 1\frac{1}{8}$ in The caespitose form must not be confounded with 179

131 T arcuatum Quel (from its arched gills) *a c*

P dark-brown, mid almost black, becoming lighter *St* sub-bulbous, white, brown at base *G* sinuate, white or buff-white *Flesh* becoming yellow or brownish

Gregarious Grassy ground Oct-Nov $2\frac{3}{4} \times 1\frac{1}{2} \times \frac{1}{16}$ in Sometimes confounded with 109a and 144

132 T oreinum Gill (from its usual habitat, Gr *oreinos*, hill) *a*

P livid brown, marg exceeding *G* *St* sub-bulbous, white above, ochreous below *G* rounded, free *Flesh* white

Solitary Odour none Heaths and open ground Autumn $1\frac{1}{2} \times 1\frac{1}{8} \times \frac{1}{4}$ in Sometimes confounded with 144

133 T album Quel (*albus*, white) *a b c* Ivory white, sometimes becoming faintly yellowish or slightly buff, fleshy

P dry *St* attenuate upwards *G* sinuate

Perhaps poisonous Taste unpleasant, bitter, acrid, odour weak or none Woods, frequent Aug-Nov $4\frac{1}{2} \times 3\frac{3}{4} \times \frac{3}{4}$ in Var *caesariatum* Quel *P* thin *St* thin *G* almost free Must be carefully distinguished from other white species

- 134 T leucocephalum** Quel (Gr *leukos*, white, *cephale*, head) *a b c*
Unchanging white

P silky-downy *St* attenuate downwards *G* rounded

Odour strong and pleasant of new meal Woods, amongst leaves, lawns, numerous specimens growing through the flattened remains of a dead hedgehog Aug-Oct $2\frac{1}{2} \times 2\frac{3}{8} \times \frac{3}{8}$ in

- 135 T acerbum** Quel (*acerbus*, bitter) *a b c*

P viscid when moist, buff or brown marg involute brown-wrinkled *St* solid, squamulose, light buff, darker below *G* crowded, pallid, then spotted or rufescent

Taste usually bitter, sometimes none, odour strong and unpleasant, sometimes pleasant or none Woods, shady places, frequent Aug-Dec $6 \times 3\frac{1}{2} \times 1\frac{1}{4}$ in

- 136 T militare** Gill (from its appearance as contrasted with 137, *miles*, a soldier) *a*

P very fleshy, viscid, cinnamon, marg white-floccose *St* pallid *G* somewhat crowded, becoming livid-spotted

Cespitose or in rows Taste and odour unpleasant Woods Oct $5\frac{1}{8} \times 3\frac{1}{2} \times 1$ in

- 137 T civile** Gill (from its appearance as contrasted with 136, *civis*, a citizen) *a c*

P subfleshy, subviscid, pale yellowish, mid darker *St* whitish *G* becoming pile yellow, rarely spotted

Odour none Woods, pine Oct-Nov $3 \times 2\frac{1}{4} \times \frac{1}{2}$ in Resembling an exannulate 17

- 138 T personatum** Quel (from its mask—the velvety edge of the pileus and the scales on the stem as contrasted with 139, *persona*, a mask) *a b c*

P very fleshy, somewhat pale livid-brown *St* brownish, bright purple above, brittle below *G* livid, sometimes becoming purplish

Solitary or gregarious Edible in dry weather, soddened and unwholesome in wet Pastures and downs, sometimes woods, common June-Nov $5\frac{1}{2} \times 3\frac{1}{2} \times 1$ in The "bluette," "blewitt," or "blue leg" Often confounded with 139 and 1039

- 138a T glaucocanum** Bres (*glaucus*, bluish-grey, *canus*, grey-whitish) *a c*

P fleshy, somewhat soft, convex-expanded, moist, marg involute, somewhat flocculoso pruinose *St* solid, bulbous, fibrilloso-striate, subsquamulose above, whitish-grey *G* emarginate, very crowded, separating from hymenophore, purple-greyish

Edible Taste mild, odour strong of new meal Under conifers Autumn $2\frac{1}{2} \times 3 \times \frac{3}{4}$ in At length wholly hoary Intermediate between 138 and 139

- 138b T sævum** Gill (from its aspect, *sævus*, sinister) *a*

P convex, then plane, pallid brownish *St* somewhat shaggy squamulose, bright lilac-purple, lighter above, white at base *G* crowded, pallid whitish

On the earth, in woods, pasturages Nov $3\frac{3}{8} \times 2\frac{3}{8} \times \frac{1}{8}$ in

- 139 T nudum** Quél (from the naked edge of the pileus and smooth stem when contrasted with **138**) *a b c*

P somewhat thin, purple, rufescent *St* purple *G* purple to rufescent

Odour acid, pleasant Woods, often amongst firs, frequent Sept-Dec
 $3\frac{1}{2} \times 2\frac{7}{8} \times \frac{1}{2}$ in Often confounded with **138**, **149**, **160**, and **1039**
 There is a large form twice the size of type

- 140 T cinerascens** Gill (from its ashy colour *cinis*, ashes) *a b*

P white to ashy-grey *St* whitish *G* rounded, free, white, then darker than *P*

Gregarious, crespitose Odour somewhat disagreeable, pungent, sometimes like new meal Woods, frequent Sometimes becomes blackish when bruised Aug-Oct $3 \times 3\frac{1}{2} \times \frac{1}{2}$ in

- 141 T panæolum** Quél (Gr *panaiolos*, variegated) *a b*

P convex then flat, sooty grey pruinose, or brown-yellow blotched different shades of umber *St* naked, whitish-grey *G* sinuato-rounded, then subdecurrent, white, then grey to dusky or brownish

Said to be edible and delicious Odour not unpleasant Grassy places
 Sept-Nov $3\frac{1}{2} \times 1\frac{3}{4} \times \frac{1}{2}$ in

- 141a T enista** Gill (perhaps from Gr *lusa*, odour of roasting fat) *a*

P convex, obtuse, plane, even, glabrous, moist, pale tan or whitish, disc darker marg incurved, even, naked *St* solid, equal, even, glabrous, tough, white *G* adnexo-rounded, crowded, transversely veined, inclined to separate from hymenophore, white, pallid yellow or reddish when bruised *Flesh* rather thick, soft, white

Grassy open places Autumn $3\frac{1}{2} \times 3\frac{1}{2} \times \frac{1}{2}$ in Similar to **141**, but white, not becoming grey

- 142 T duracinum** Sacc (*durus*, hard, *acinus*, a berry) *a* Ashy-grey

P very fleshy, broadly umbonate *St* attenuate upwards, reticulato-squamose above, paler than *P* or white *G* cinereous

Under cedars Oct $2\frac{7}{8} \times 2\frac{1}{2} \times 1\frac{1}{2}$ in Allied to **126**

g Hygrophane

- 143 T grammopodium** Quél (from the striate stem, Gr *gramme*, a line, *pous*, a foot) *a b c*

P depressed, umbonate, livid, opaque, brownish *St* whitish brown, enlarged and white-villous below *G* whitish or livid

Taste unpleasant, odour mouldy, unpleasant Pastures and grassy places in woods, frequent June-Nov $5\frac{1}{4} \times 4 \times \frac{3}{8}$ in The pileus is frequently clouded with white mycelium as in **153** There is a wholly white variety

- 144 T melaleucum** Quél (from the dark pileus and white stem, Gr *melas*, black, *leukos*, white) *a b c*

P flat, subumbonate, dark, smoky, olive- or slate-brown, varying to lavender *St* white, often buff below *G* white, sometimes becoming yellowish *Flesh* unchanging white

Taste strong and disagreeable or none, odour pleasant or none Grassy places, orchards, gardens, uncommon March-Oct $3\frac{3}{8} \times 2\frac{1}{2} \times \frac{1}{2}$ in

Sometimes confounded with 131 and 132 Var *polioleucum* Gill *P* livid, then grey Var *porphyroleucum* Gill Firmer *P* fuliginous or fuscous, then rufescent, with evanescent um

- 145 **T brevipes** Quel (from its short stem, *brevis*, short, *pes*, a foot) *a b c*

P broadly subumbonate, livid pale- or red-brown or dull lavender
St bulbous, white to brownish *G* whitish to fuscous *Flush* brown, white when dry

Solitary or somewhat connate Odour none Woods, open places, fields, etc June-Nov $3\frac{1}{2} \times 1\frac{1}{2} \times \frac{1}{2}$ in

- 146 **T humile** Quel (*humilis*, low, dwarf) *a b c*

P livid ashy- or warm-brown, pale dull buff or pale slate, sometimes faintly zoned darker *St* pulverulent-to-villous, ashy-white *G* whitish *Flush* whitish or ashy-brown

Gregarious or crepitose Taste not unpleasant, odour none Woods, open places, gardens, cinder heaps, frequent Aug-Nov $2\frac{1}{4} \times 1\frac{1}{8} \times \frac{1}{4}$ in

- 147 **T exscissum** Quel (from the linear gills, as if cut away, *exscindo*, to tear out) *a b c*

P umbonate, brownish-white, pale mouse-colour or somewhat buff, varying dark brown *St* smooth, white *Flush* white

Pastures May-Nov $3 \times 2\frac{1}{2} \times \frac{3}{8}$ in

- 148 **T subpulverulentum** Karst (from the minute hoary powder frequent on the pileus, *pulvis* dust) *a b*

P broadly subumbonate, pale livid-brown, greyish or whitish
St smooth, slightly striate, white *G* white *Flush* white

Sometimes in large rings, twenty or more feet in diameter Taste at first agreeable, at length astringent Woods, pastures, gardens Aug-Oct $2\frac{1}{2} \times 1\frac{1}{2} \times \frac{1}{8}$ in

- 149 **T sordidum** Quel (*sordidus*, dirty) *a b c*

P broadly subumbonate, pale livid to purplish pale brown *St* colour as *P* *G* sinuate- or adnato-decurrent, becoming distant, purplish or pale brownish

Gregarious, somewhat crepitose Odour none Pastures, manure, dung heaps July-Nov $3\frac{1}{2} \times 2\frac{1}{2} \times \frac{1}{8}$ in Sometimes mistaken for a pale form of 139

- 150 **T pædium** Quel (*pædus*, nasty, mean) *a*

P tough, flaccid, umbonate, smoky-grey or dull brown, at first radiato-streaked with fibrils *St* paler than *P* *G* crowded, rounded, whitish, then grey

Odour none Woods, grassy places, gardens, on dunghills Aug $1\frac{1}{2} \times 1\frac{1}{2} \times \frac{1}{4}$ in

- 151 **T livivium** Karst (from its watery-ashy colour, *livivium*, ashes and water) *a b c*

P umbonate, umber, ashy-brown when dry *St* floccoso-pruinose, white, then as *P* *G* distant, adnexo-rounded, grey

Woods, pine Nov $3 \times 2\frac{1}{2} \times \frac{1}{2}$ in

152 T putidum Karst (*putidus*, stinking) *a c*

P subumbonate, olive-grey or brown, hoary or sprinkled white-silky *St* grey, white pruinose *G* crowded, adnexo-free, ashy-grey

Odour strong, rancid Woods, pine Oct -Nov $2 \times 2\frac{1}{2} \times \frac{1}{4}$ in

VII CLITOCYBE Quel

(From the decurrent gills, Gr *klitos*, a declivity, *kube*, a head)

Vil universal, imperfect or obsolete, manifest as pruina, flock, silkiness or squamules on the pileus and stem *Hymenophore* confluent and homogeneous with the fleshy stem *Pileus* varying

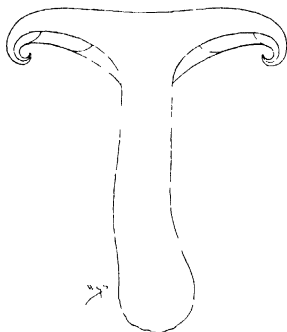


Fig 16 —Section of *Clitocybe nutularis* Quel
One third natural size

infundibuliform to plano-depressed, usually fleshy at the disc, margin at first involute *Stem* central, simple, without cartilaginous bark *Gills* decurrent, rarely adnate, with an acute edge *Spores* elliptical or subglobose, smooth (Fig 16)

The species usually grow on the ground, but exceptions occur in 185, 201, 208, 212, and 223, which rarely grow on logs, stumps or rotten wood, they commonly grow in clusters, many are fragrant and appear in the late autumn or early winter a few are edible

Must not be confounded with *Hymenophorus*, where the gills are thick and often of a wax-like substance, or with *Cantharellus*, where the gills are very thick and fold-like, or *Lentinus* *Panus* or *Xerotus*, where the substance is leathery and the habitat usually stumps

Species 153—224

A *Pileus* fleshy, not hygrophanous, often becoming pale and silky in drying

a Disciformes *Pileus* convex, then plane or depressed, regular
Gills adnate or adnato-decurrent

Pileus ashy or brownish 153—159

Pileus violaceous, rufescent 160—163

Pileus becoming yellow 164—167

Pileus green, except 170, then pale, odour sweet 168—170

Pileus white 171—177

b Diffformes *Pileus* at first umbonate, then expanded or depressed *Gills* unequally decurrent Generally cæspitose, sometimes solitary 178—189

c Infundibuliformes *Pileus* at length deeply depressed *Gills* truly decurrent Often losing colour in drying

Pileus coloured, becoming hyaline, minutely flocculose or silky Hygrophanous but not externally moist 190—195

Pileus varied in colour Moist in rainy weather 196—204

Pileus shining whitish, slightly flocculoso-sprinkled or smooth 205—207

B Hygrophanous

d -Cyathiformes *Pileus* cup-shaped *Gills* at first adnate, then decurrent Colours dull when moist (Must not be confounded with the *Hydrogramme*, under *Omphalia*) 208—214

e Orbiformes *Pileus* convex, then plane or depressed, shining, not mealy or squamulose *Gills* adnate or adnato-toothed Colours dull or watery-hyaline

Pileus at first dark *Gills* becoming ashy 215—217

Pileus becoming pale *Gills* whitish 218—221

f Versiformes *Pileus* tough, more or less squamulose or furfuraceous *Gills* adnate or decurrent, somewhat thick, distant *Stem* tough

Pileus dull or dusky with darker squamules 222, 223

Pileus bright in colour 224

a Disciformes

153 C nebularis Quel (from the frequent clouds of white mycelium on the pileus, *nebula*, a cloud) *a b c*

P smoky-brown, grey, or pale slate *St* spongy-elastic, whitish or grey *G* crowded, shortly decurrent, white *Flesh* opaque white

Laxly gregarious, rarely connate as in 123 Edible Taste somewhat peppery, odour of curd cheese Woods, fir, beech, hedge bottoms, etc., amongst leaves, common Aug-Dec $6 \times 4\frac{1}{2} \times 1\frac{1}{2}$ in There is a white variety Must not be confounded with 128 The mycelium on pileus gives rise to 451 A similar mycelium occurs on 143

- 154 C clavipes** Gill (from the club-shaped stem, *clava*, a club, *pes*, a foot) *a b c*

P flat, sooty-brown or grey, marg often white *St* smoky-livid, somewhat fibrillose *G* subdistant, deeply decurrent, white *Flesh* hyaline-whitish

Odour mild, pleasant Woods, spruce fir, pine, beech, common July–Nov $2\frac{1}{2} \times 2\frac{3}{8} \times \frac{1}{2}$ in There is a white variety The pileus is sometimes 4 in or more in diam

- 154a C comitalis** Gill (perhaps from its being one of a number of allied forms which meet at this position in *Clitocybe*) *a*

P obtuse, soon plane, even, glabrous, somewhat moist, not hygrophanous, sooty-brown, almost black *St* stuffed, attenuate upwards, obconic, glabrous, sooty-brown *G* subdecurrent, horizontal, thin, crowded, white *Flesh* white or whitish

Odour none Pine woods, damp places amongst moss Autumn $1\frac{3}{8} \times 3\frac{1}{4} \times \frac{1}{8}$ in Firmer and smaller than 154

- 155 C gangrænosa** Gill (from its ulcerous appearance, *gangræna*, an ulcer) *a b c*

P livid, at first white-pulverulent *St* slender to stout, sooty-grey *G* sub- or sinuato-decurrent

Taste insipid, unpleasant, odour sometimes strongly fetid, meal like but nauseous, sometimes strong and not unpleasant Woods and plantations, larch, rare Oct–Nov $3\frac{3}{8} \times 3\frac{1}{4} \times \frac{3}{8}$ in More or less changing within and without to slate colour or black, the flesh changes from livid to indigo, then black, sepia black when dry Must not be confounded with 1168

- 155a C polia** Karst (Gr *polios*, grey) *a b*

P glabrous, not hygrophanous, pale grey or pale olive-brownish, marg whitish *St* solid, slightly attenuate upwards, white, pale brownish below *G* somewhat deeply decurrent, closely crowded, very narrow, white *Flesh* white, pale brown in *P*

Cespitose, usually in small clusters, but sometimes 1 ft 4 in in diam Woods Autumn $2 \times 3\frac{1}{4} \times \frac{3}{8}$ in

- 156 C inornata** Gill (*inornatus*, unadorned) *a b c*

P with a separable livid-brownish pellicle, which frequently cracks from the marg upwards and peels up, unchanging livid *St* greyish or brownish *G* decurrent, colour as *St* *Flesh* grey

Odour mushroom like Fields, woods, under cedars, rare Oct–Nov $4 \times 2\frac{1}{4} \times \frac{1}{2}$ in

- 156a C luscina** Karst (from the often small eye-like pileus and the solitary habit, *luscinus*, one-eyed) *a*

P somewhat fleshy, even, edge spreading, glabrous, grey on a pale reddish or buff ground, purple or slate-brown when young, marg striate *St* solid, attenuate downwards, greyish or faintly brownish, white pulverulent *G* subdecurrent, crowded, yellowish- or salmon-whitish, shaded grey

In pastures Autumn $2 \times 2 \times \frac{3}{8}$ in

- 157 C curtipes** Gill (from the short stem, *curto*, to shorten, *pes*, a foot) *a*
P expanded, oblique, obtuse, olive-ochre to olive- or flesh-brown
St rigid, thickened upwards, olive-brown, subpruinose *G*
 adnate, closely crowded, ivory-white
 Grassy places Autumn $1\frac{3}{8} \times 1 \times \frac{1}{8}$ in
- 158 C hirneola** Qué! (from a fancied jug-like shape, *hirnea*, a jug)
a b c
P umbilicate, minutely silky-hoary, whitish, grey, tan or olive
 shaded *St* colour as *P*, hoary above *G* decurrent, crowded,
 lighter than *P*, becoming hoary
 Amongst moss and grass, roadsides Oct $1\frac{1}{2} \times 1\frac{3}{8} \times \frac{1}{8}$ in Must not be
 confounded with members of *Omphalia*
- 159 C zygothylla** Sacc (from the vein-connected gills *Gr zygon*,
 a yoke, *phyllon*, a leaf) *a b*
P whitish mid pale buff marg rugose or plicate, becoming
 white *St* whitish, downy at base *G* decurrent, subdistant,
 pale clay-colour
 Amongst leaves Oct–Nov $4 \times 1\frac{3}{4} \times \frac{1}{2}$ in Resembling in general appear-
 ance 202 and 1278 In the whitish tawny pileus and clay coloured gills it
 resembles 570
- 160 C cyanophæa** Sacc (*Gr luanos*, blue, *phaios*, dusky) *a*
P pale slate-blue, mid brown *St* paler than *P*, becoming
 yellowish, abruptly white above *G* deeply decurrent, pale
 slate-blue
 Woods $2\frac{3}{4} \times 2\frac{3}{8} \times \frac{1}{2}$ in Must not be confounded with 139
- 161 C opipara** Gill (*opiparus*, splendid) *a l*
P shining, bronzy flesh-colour *St* pale brownish *G* adnato-
 decurrent, white to pale yellowish
 Taste and odour pleasant Mossy places under trees, beech Oct
 $3 \times 3 \times \frac{7}{8}$ in
- 162 C amara** Qué! (*amarus*, bitter) *a b c*
P flat, dull buff, then whitish *St* white *G* adnato decurrent,
 crowded, white
 Odour of new meal Woody places Oct $3\frac{1}{4} \times 1\frac{1}{8} \times \frac{3}{8}$ in
- 163 C socialis** Gill (from its gregarious habit) *a*
P acutely umbonate, reddish-buff *St* brownish, strigose at base
G sinuato-decurrent, scarcely crowded, becoming yellowish
 Odour none Amongst fir leaves Sept–Oct $1\frac{1}{8} \times 1\frac{3}{8} \times \frac{1}{4}$ in Must not
 be confounded with 165
- 164 C amarella** Qué! (*amarus*, bitter) *a b*
P subumbonate, pallid fawn to whitish *St* solid, colour as *P*
G subdecurrent, crowded, pallid
 Taste very fetid bitter, odour strong of prussic acid or very disagreeable
 Woods Oct $2\frac{1}{2} \times 1\frac{3}{4} \times \frac{1}{4}$ in

- 165 C vernicosa** Gill (from the shining pileus, *vernus*, varnish) *a b*
P yellowish or buff *St* stuffed, yellow *G* adnato-decurrent, subdistant, sulphur-yellow *Flesh* whitish to pale sulphur
 Odour none Woods, fir, larch, rare Autumn $3\frac{1}{2} \times 1\frac{3}{4} \times \frac{3}{8}$ in
 Somewhat resembles a yellow *Hygrophorus*
- 166 C venustissima** Karst (*venustus*, beautiful) *a b*
P thin, subumbilicate, orange-vermilion, marg crenate *St* orange-yellow, base white *G* decurrent, subdistant, yellow
 Odour none Amongst larch and pine leaves Autumn $2 \times 1\frac{1}{2} \times \frac{1}{2}$ in
 Resembles a yellow *Hygrophorus*
- 167 C subalutacea** Gill (from its colour, *aluta*, soft leather) *a c*
P thick, subumbonate or depressed, pale tan *St* pale straw
G adnato-decurrent, distant, pallid white
 Odour as in 168, or weak of anise, sometimes strong and disagreeable of rancid meal or none Under trees, hollics Nov $2 \times 1\frac{3}{4} \times \frac{3}{8}$ in
- 168 C odora** Quel (*odorus*, fragrant) *a b c*
P subumbonate, dull greenish or bluish *St* greyish, whitish, greenish or pale brownish *G* paler than *P*
 Single or subcaespitose Odour strong and pleasant of melilot, anise, almonds, meadow sweet or new mown hay, stronger in recently dried examples Woods, grassy places, roadsides Aug-Nov $3 \times 1\frac{3}{4} \times \frac{3}{8}$ in
- 169 C Trogu** Sacc (after Jacob Gabriel Trog, Swedish botanist) *a*
P subumbonate, ashy-white to buff-grey *St* solid, white *G* white
 Said to be edible Odour fragrant and spicy as in 168 Woods, amongst leaves Oct-Nov $3\frac{1}{2} \times 1\frac{1}{4} \times \frac{1}{2}$ in The colour approaches 215
- 170 C rivulosa** Quel (from the rivulose cracks on the pileus) *a b*
P whitish, very pale or brownish flesh colour or brownish-ochre with no shade of green, appearing at first as if whitish-varnished, the cracking of this coat giving the rivulose appearance *St* colour as *P* *G* flesh-colour
 Solitary, gregarious or caespitose Taste mild odour pleasant On leaves, amongst moss, pastures, roadsides, etc Oct-Nov $1\frac{1}{2} \times 1\frac{1}{2} \times \frac{1}{16}$ in
 Some small forms, as the var *neptunia* Mass approach 171
- 171 C cerussata** Quel (from its colour, *cerussa*, white-lead) *a b c*
St solid *G* adnato-decurrent, very crowded, never yellow
 Often in troops Taste mild, pleasant, sweet, or like 1394 sometimes rancid, odour pleasant or none Woods, mixed, fir, frequent April-Oct $3\frac{3}{8} \times 2 \times \frac{1}{8}$ in There are three forms —1 Stout like 122 and 123
 2 Slender, like 172 3 Large, stout, irregular The var *difformis* Gill is British Sometimes springs from dense, creeping mycelium A close ally of 188
- 172 C phyllophila** Quel (Gr *phyllon*, a leaf, *ph* loves, loving) *a b c*
P tan or white *St* stuffed or hollow, sometimes pale brownish
G slightly decurrent, subcrowded, sometimes buff-white or yellowish
 Caespitose and larger, solitary and smaller Odour mealy or none Woods, chiefly amongst beech leaves, one form on pine leaves Sept-Dec $3 \times 2\frac{1}{2} \times \frac{3}{8}$ in Must not be confounded with 367

- 173 C pithyophila** Gill (Gr *pitus*, pine, *philos*, loving) *a b c*
Persistently white

P plano-umbilicate, thin, hygrophanous *St* somewhat hollow, tomentose at base *G* adnato-decurrent, very crowded

Gregarious or subcespitose Odour pleasant Pine woods, frequent
Sept-Nov $2\frac{3}{8} \times \frac{1}{8} \times \frac{1}{8}$ in Must not be confounded with 208

- 174 C tornata** Quel (from its shape *torno*, to turn on a lathe) *a*

P gibbous, mid fleshy *St* stuffed, pubescent at base *G* adnate with a decurrent tooth, very crowded

Odour none Woods, amongst grass, by decayed stumps, elm Oct
 $2 \times 2 \times \frac{1}{4}$ in Always small

- 175 C candicans** Quel (*candicans*, shining-white) *a b c*

P mid not fleshy *St* somewhat hollow *G* adnato-decurrent, crowded

Odour of new meal Woods, amongst damp leaves common July-Nov
 $1\frac{1}{2} \times 1\frac{1}{2} \times \frac{1}{8}$ in Must not be confounded with 176

- 176 C dealbata** Gill (*dealbatus*, whitewashed) *a b c*

P not fleshy *St* stuffed or hollow *G* adnate or adnato-decurrent, crowded

Odour sweet, weak, pleasant, mealy but fungoid Woods and pastures, sometimes on old mushroom beds, common July-Nov $2\frac{1}{2} \times 1\frac{1}{2} \times \frac{3}{8}$ in
Some small, delicate forms, var *minor* Sacc, are at times confounded with 175

- 177 C gallinacea** Gill (from its colour, like a hen's egg *gallina*, a hen) *a b c*

St solid *G* adnato-decurrent, crowded

In troops, sometimes in rings, amongst grass Taste slightly fetid acid, odour strong, earthy Woods and pastures, amongst grass and moss, common Sept-Nov $1\frac{1}{2} \times 1\frac{1}{2} \times \frac{1}{4}$ in

b Diffotmes

- 178 C ampla** Gill (*amplus*, large) *a b*

P fleshy, somewhat silky, sooty or ochreous-brown *St* white or brownish white *G* decurrent or sinuato-adnate and toothed
Flesh fibrous

Tasteless, odour none Woods, amongst moss Sept-Nov $6\frac{3}{8} \times 3\frac{3}{8} \times 1\frac{1}{8}$ in

- 178a C molybdina** Gill (from the dark, lead-coloured pileus, Gr *molybdaina*, lead-ore) *a*

P fleshy, campanulate, expanded, umbonate, even, glabrous, margin thin, somewhat dark sooty-umber, mid sooty-buff
St solid, stout, fibroso-striate, mealy-squamulose above, pallid or yellowish salmon-white, white at base *G* adnate, broad, pale yellowish-salmon

Cæspitose Woods Autumn $5\frac{1}{2} \times 6\frac{3}{8} \times \frac{3}{8}$ in With the general appearance of 458 (var *eximius*), but the adnate gills and white spores very different

- 179 C decastes** Quél (from its growing in clusters of about ten, Gr *dekas*, a company of ten) *a b*
P very thin, of two easily separable strata, tan-grey or tan
St whitish *G* adnato-decurrent, subdistant, white
 Cæspitose, in clusters of about one foot in diam Woods, oak, beech, by
 paths, plantations, gardens, orchards, on sawdust Oct–Nov $9 \times 4\frac{3}{4} \times \frac{1}{2}$ in
 Must not be confounded with 130
- 180 C subdecastes** Sacc (from its affinity with 179) *a b*
P very thin, campanulate, smooth, even, ivory-white, mid
 ochraceous *St* silky-fibrous, shining white *G* rounded,
 crowded, thin, white
 Cæspitose Taste and odour none On the ground Sept $3\frac{1}{2} \times 5\frac{1}{2} \times \frac{1}{2}$ in
- 181 C aggregata** Gill (from its growing in clusters *aggregatus*,
 collected together) *a c*
P gibbous, then depressed, not fleshy, often excentric, grey or
 dull ochraceous *St* whitish *G* subdecurrent, crowded, pale
 ochreous or flesh-colour
 Odour strong Woods, oak, on sawdust, mushroom beds July–Oct
 $3\frac{1}{2} \times 3\frac{1}{2} \times \frac{1}{8}$ in Becoming rufous stained
- 182 C elixa** Karst (from its sodden condition in wet weather,
elixus, soaked) *a b*
P gibbous, very fleshy, hygrophanous, sooty brownish or greyish,
 becoming pale *St* pallid brownish *G* decurrent, distant,
 white
 In troops Woods frequent Oct–Nov $4\frac{3}{4} \times 2\frac{1}{2} \times \frac{3}{8}$ in Very bibulous,
 becoming saturated with moisture heavy and brittle in wet or frosty
 weather, breaking with its own weight
- 183 C fumosa** Quél (from its smoky colour, *fumus*, smoke) *a b c*
P subgibbous, then plane, grey-looking brown to livid
 whitish, mid sometimes slightly scurfy as in 69 *St* whitish
 or brownish *G* rounded, adnate, or decurrent, crowded,
 greyish- or brownish-white, or yellowish-olive-white
 Gregarious or cæspitose in groups a foot or more in diam Suspected
 poisonous Tasteless or insipid odour strong, fungoid, or none Woods,
 often on wood ashes old sawdust, amongst grass, on rubbish heaps, on
 earth where trees have been felled uncommon June–Nov $4\frac{1}{4} \times 2\frac{3}{4} \times \frac{1}{8}$ in
 Often in company with 277 and 1374
- 184 C tumulosa** Sacc (from the mound like appearance of the
 connate groups, *tumulus*, a mound) *a b*
P gibbous, umber becoming pale *St* floccoso-pruinose, white
G subdecurrent, crowded, white to livid grey
 Larger forms laxly cæspitose, smaller, densely cæspitose Woods Sept
 $3\frac{1}{2} \times 3\frac{1}{2} \times \frac{3}{8}$ in
- 185 C pergamenta** Mass (from its colour, like parchment, *perga-
 menta*) *a*
P umbonate, at first brown *St* solid, with a brittle cartila-
 genous bark *G* broadly sinuato-decurrent
 Cæspitose Stumps Oct $2 \times 5 \times \frac{1}{8}$ in The habitat and cartilaginous
 bark point to *Collybia* rather than *Clitocybe*

- 186 C cryptarum** Mass (from its occasional appearance in cellars, *crypta*, a vault) *a b*

P subconical, then depressed, floccose, pale buff or brown, spotted *St* hollow, paler than *P*, mottled within *G* sub-decurrent, white

Densely caespitose Taste insipid, odour none Sawdust Oct $2\frac{1}{2} \times 3\frac{1}{2} \times \frac{7}{8}$ in
With the varying habit and size of 184

- 187 C monstrosa** Gill (*monstruosus*, strange) *a b* White

P convex-umbonate *St* solid, white-farinose above *G* rounded, crowded

Often densely caespitose Probably edible On the ground Sept-Oct $2\frac{1}{2} \times 1\frac{1}{2} \times \frac{7}{8}$ in May be an autumnal form of 122 or a variety of 133, or a form of 94 It may be a *Tricholoma*, as suggested by Berkeley, but cannot be a form of 124 as suggested by Fries It is more probably a form of 123, the spores are the same in size Stem sometimes 6 in long

- 188 C opaca** Gill (from its opaque colour) *a b c* White with a silvery glare

P convex-plane, subumbonate then repand, floccose *St* stuffed *G* adnato-decurrent, very crowded *Flesh* pale brownish

Single or connate Woods Oct-Nov $3 \times 2\frac{3}{8} \times 1\frac{1}{4}$ in A close ally of 171

- 189 C occulta** Mass (from its doubtful characters, *occultus*, hidden) *a* Cartilaginous, tough

P convex-plane, then slightly depressed, innato virgate mid livid-smoky, marg whitish *St* solid, paler than *P* or white *G* subdecurrent, subdistant, white

Gregarious Charred ground Nov $3 \times 2\frac{1}{2} \times \frac{3}{8}$ in

c Infundibuliformes

- 190 C maxima** Quel (*maximus*, the greatest) *a b* Tan-whitish

P thin, umbonate, marg even *St* solid *G* subcrowded, not branched *Flesh* white

Odour weak and pleasant, sometimes strong Grassy places, hedge banks, woods, pastures, frequent July-Nov $10\frac{3}{4} \times 4\frac{1}{2} \times 1\frac{1}{2}$ in Sometimes a foot or more high and broad Often confounded with 1172 the latter has no umbo, has a sulcate margin, is less infundibuliform, has branched gills, and a short stem

- 191 C infundibuliformis** Quel (*infundibulum*, a funnel, *forma*, form) *a b c*

P thin, typically umbonate, pale buff then white *St* spongy-stuffed, ivory white *G* subcrowded, ivory-white

Odour usually weak and pleasant, often like anise, sometimes none Woods, grassy places, near trees, beeches, rarely on rotten wood, common June-Dec $3\frac{1}{2} \times 1\frac{1}{2} \times \frac{1}{2}$ in A variable species There is a wholly white variety Var *membranacea* Gill *P* membranous, brick red Woods, pine

- 192 C trullæformis** Karst (*trulla*, a ladle, *forma*, form) *a c*
P thin, flocculoso-villous, dry, brown grey to brown *St* spongy-stuffed, ashy-grey *G* distant, connected by veins, white
 Borders of fir woods, amongst grass and bushes Oct $2\frac{1}{2} \times 1\frac{1}{2} \times \frac{1}{4}$ in
 Must not be confounded with 208
- 193 C ineilis** Gill (from its incised or crenate pileus, *ineilis*, incised) *a b*
P plano-depressed, silky-flocculose, reddish *St* hollow, attenuate downwards, colour as *P* *G* distant, veined, white
 Odour strong of meal, sometimes none Woods, under firs Nov $2\frac{1}{2} \times \frac{3}{4} \times \frac{1}{4}$ in Resembles a small 1297
- 194 C sinopica** Gill (from Sinope in Patagonia, where red-lead is found—from the vermilion brownish pileus) *a b c*
P slightly depressed, floccoso-rivulose, dry *St* stuffed, colour as *P* or buff *G* subdecurrent, very crowded, white, then yellowish
 Woods chiefly on burnt places Oct $1\frac{3}{8} \times 1\frac{1}{4} \times \frac{1}{16}$ in Resembling a small 1300
- 195 C parilis** Gill (from its symmetrical growth) *a b c*
P subdepressed, atomate or flocculose, brownish, mottled darker, then white-grey *St* stuffed, pale yellowish-brown or brown-grey *G* very crowded, brown-grey
 Woods, sides of plantations Sept-Oct $2\frac{1}{2} \times 1\frac{1}{2} \times \frac{1}{4}$ in Resembling a *Lactarius* Must not be confounded with *Tricholoma* or *Omphalia*
- 196 C gilva** Quel (*gilvus*, pale yellowish-brown) *a b c*
P subdepressed, sometimes reddish, guttate-spotted *St* paler than *P* *G* pallid, then ochreous
 Woods pine Oct-Dec $3 \times 2\frac{1}{2} \times \frac{1}{2}$ in Staining paper amber when dried Resembles in form *Paxillus* and *Lactarius*
- 197 C subinvoluta** W G Sm, *Agaricus subinvolutus* W G Sm (from the subinvolute margin of the pileus) *a b* Wholly pale buff, at length slightly spotted or clouded buff or yellow
P fleshy, plane, subdepressed, mid darker guttate-spotted, marg at first subinvolute *St* solid, subbulbous, darker below *G* decurrent, broad *Flesh* buff white darker below
 Under firs Oct $3\frac{1}{5} \times 2\frac{1}{2} \times \frac{3}{4}$ in Not *Agaricus subinvolutus* Batsch, which is a form of 1181
- 198 C geotropa** Quel (from the often strongly deflected margin of the pileus, *Ge*, the earth, *trope*, to turn) *a b c*
P depressed, typically umbonate, pale brown, at first guttate-spotted *St* attenuate upwards, tan-brownish *G* white
 Sometimes in fairy rings of great size Odour of almonds Woods pastures Sept-Dec $6\frac{1}{2} \times 6 \times \frac{1}{2}$ in Pileus sometimes 9 in in diam Varies with a short stem and exumbonate Intermediate forms occur between this and 197

- 199 C spinulosa** Sacc (from a mistaken reference to the supposed spinulose spores) *a b*

P plane, subdepressed, umbonate, leathery, pale buff to rufescent flesh-colour *St* red-buff above, paler below, concentrically cracked white, as in **21** *G* white, then light yellowish *Flesh* white

In troops or two or three connate. Odour sweet, pleasant. Amongst grass by roadsides. Nov $4 \times 3\frac{3}{4} \times \frac{3}{4}$ in

- 200 C splendens** Gill (*splendens*, shining) *a b*

P depressed, pale shining metallic-yellowish, shaded reddish-brown *St* solid, attenuate upwards colour as *P* *G* white, then light yellow

Solitary. Woods, amongst dead pine leaves, etc. Sept $4 \times 1\frac{7}{8} \times \frac{5}{8}$ in. Intermediate between **198** and **202**

- 201 C inversa** Quel (from the down turned margin of the pileus) *a b c*

P depressed, somewhat fragile, oily-smooth in appearance, not guttate, yellowish-buff to dull crimson-brownish *St* stuffed or solid lighter than *P* *G* whitish or yellowish *Flesh* as *P* but lighter

Solitary, subgregarious or caespitose. Taste same as mushroom, odour acid. Woods, chiefly fir, sometimes on logs, frequent. Aug-Dec $3\frac{1}{2} \times 3 \times \frac{5}{16}$ in. Not unlike **1299** in general appearance. A luxuriant form is *Agaricus lobatus* Sowerby

- 202 C flaccida** Quel (from the limp pileus, *flaccidus*, limp) *a b c*

P broadly umbilicate, sienna or buff *St* subhollow, pale sienna *G* obconico-decurrent, crowded, whitish, becoming yellow *Flesh* white to brownish

Solitary, sometimes gregarious, forming rings. Taste insipid. Plantations, fir, hills. Sept-Jan $3 \times 1\frac{1}{2} \times \frac{5}{8}$ in. **201** and **202** are sometimes undistinguishable: the colour vary yellowish brown to brick red. Must not be confounded with **159**. Resemble **1278**

- 203 C vermicularis** Quel (from its colour, *vermis*, a worm) *a b*

P broadly umbilicate flesh-colour or light brownish *St* yellow to white *G* arcuato-decurrent, colour as *St* *Flesh* lighter than *P*

Fir woods. Sept-Oct $2\frac{1}{2} \times 2\frac{1}{2} \times \frac{5}{8}$ in. Resembling a small **1288**

- 204 C senilis** Gill (from the wrinkled aspect of the pileus *senilis*, old) *a b*

P infundibuliform, concentrically cracked, olive-brown or tan-brownish *St* solid, paler than *P* *G* decurrent in a straight line paler than *St*

Gregarious. Odour none. Woods, pine lawns, etc. Autumn $3\frac{1}{4} \times 1\frac{3}{4} \times \frac{5}{16}$ in

- 205 C catinus** Quel (from its bowl shaped pileus, *catinus*, a bowl) *a*

P depressed, becoming flesh colour *St* spongy-stuffed, attenuate upwards *G* colour as *P*

Odour pleasant. Amongst dead leaves. Autumn $2\frac{3}{4} \times 2 \times \frac{5}{8}$ in

- 206 C tuba** Gill (from its trumpet-shaped pileus, *tuba*, a trumpet)
a c

P narrowly umbilicate, sometimes pale blue-grey *St* stuffed or hollow, colour as *P* *G* deeply decurrent, very crowded, white

Gregarious Taste mild of radish, odour of meal or horseradish or none
Woods, pine, on dead leaves Oct-Nov $2\frac{1}{2} \times 2\frac{1}{2} \times \frac{3}{8}$ in Must not be confounded with 173

- 207 C ericetorum** Quel (from its habitat, *ericetum*, a heath) *a b c*

P deeply depressed, arid *St* solid, attenuate downwards *G* subdecurrent, subdistant

Odour pleasant Sept-Nov $1\frac{1}{2} \times 1 \times \frac{1}{2}$ in Resembling 1214 in appearance

d Cyathiformis

- 208 C cyathiformis** Quel (*cyathus*, a cup, *forma*, form) *a b c*

P broadly umbilicate, deep brown, pale when dry *St* attenuate upwards, paler than *P* *G* distant, pale brownish-white
Flush colour as *G*

Woods, pastures etc rarely on rotten wood and tan heaps common
Aug-Feb $2\frac{1}{2} \times 2\frac{1}{2} \times \frac{3}{8}$ in Must not be confounded with 192

- 209 C cinerascens** W G Sm, *Agaricus cinerascens* Batsch (from its colour *cinis*, ashes) *a*

P plano-depressed, lavender-brownish *St* equal, striate, pale greyish or brownish *G* adnato-decurrent, white, then yellowish or grey

Amongst moss Autumn $1\frac{1}{2} \times 1\frac{1}{2} \times \frac{1}{8}$ in

- 210 C expallens** Quel (*expallens*, growing pale) *a b*

P plano-depressed, very watery, white or pale brown *St* hollow-flocculose, paler than *P* *G* adnato-decurrent, white or greyish

Woods, mixed, pastures, etc Aug-Dec $2 \times 1\frac{1}{2} \times \frac{3}{8}$ in Smaller, usually earlier, paler, less depressed and with less distant gills than 208

- 211 C obbata** Quel (from the cup-shaped pileus, *obba* a cup) *a c*

P deeply depressed, submembranous, blackish brown or blackish-grey, marg striate *St* hollow ashy-brown *G* distant, dull grey

Odour none Woods, fir, down Oct-Nov $1\frac{1}{2} \times 2 \times \frac{1}{4}$ in

- 212 C pruinosa** Quel (from its pruinose appearance) *a c*

P broadly and somewhat deeply depressed, sometimes squamulose, olive-brown, then grey *St* paler than *P* *G* crowded, white, then dull yellowish

Odour none Pine woods amongst moss, sometimes on rotten wood Nov-Dec $3 \times 1\frac{1}{2} \times \frac{1}{4}$ in

213 C concava Gill (from the concave pileus) *a c*

P deeply umbilicato-depressed, very thin, tough, grey- or olive-brown, marg not striate *St* ashy-grey *G* very crowded, colour as *P*

Often gregarious Odour none Plantations, woods, fir, pastures, rare
Sept $2\frac{1}{8} \times 1 \times \frac{3}{8}$ in Must not be confounded with *Omphalia*

214 C brumalis Quel (from its usual time of appearance, *bruma*, winter) *a b c*

P broadly plano-umbilicate, brown or whitish *St* hollow, paler than *P* *G* crowded, livid to yellowish-white

Taste sometimes slightly nauseous odour weak, earthy, not unpleasant, evanescent or none Woods, on pine leaves, amongst heather, on commons, on dirt heaps, common Oct-Jan $2 \times 2\frac{1}{2} \times \frac{1}{4}$ in

*c Orbiformes***214a C orbiformis** Gill (*orbis*, a circle, *forma*, form) *a c*

P convex, plane, obtuse, not truly depressed, glabrous, hygrophanous, smoky-grey, marg spreading, even *St* stuffed, elastic, somewhat striate, attenuate and naked upwards, grey, base downy *G* adnato-decurrent, somewhat distant, greyish-white

Odour none Grassy places in pine woods Autumn $2 \times 3 \times \frac{3}{4}$ in
Analogous with, but not allied to 208

215 C metachroa Quel (Gr *metachroos*, changing colour) *a b c*

P umbonate, then plano-depressed, ochreous-whitish to brownish-grey, marg at length striate *St* white *G* adnato-decurrent, ashy-whitish

Odour none Woods, pine, dry places grassy woods, on leaves, rotting fern, turf, earth, dirt heaps May-Nov $1\frac{1}{4} \times 2\frac{1}{2} \times \frac{1}{4}$ in

216 C pausiaca Gill (from its olive-coloured gills, *pausia*, an olive) *a c*

P plano-depressed, subumbonate, tan, brown or grey *St* ashy-grey, white above *G* obtusely adnato rounded

Odour weak of meal Woods, pine Oct $1\frac{1}{2} \times 1\frac{1}{4} \times \frac{1}{8}$ in

217 C ditopus Gill (from the habit, often growing in twos, Gr *ditto*s, twofold, *pous*, a foot) *a b c*

P broadly umbilicate, horny, dark ashy grey, or dull brown- or fuscous-ochre, marg clouded-sooty *St* hollow, pale ashy-grey *G* adnate, crowded, colour as *P*

Odour strong of new meal Woods, pine, dead leaves Oct $3 \times 2 \times \frac{1}{4}$ in

218 C diatreta Quel (from its perforate stem, Gr *diatretos*, perforate) *a*

P plano-depressed, flesh-colour, then tan *St* pallid flesh-colour *G* adnato-decurrent, colour as *St*

Odour almost obsolete Woods, pine Autumn $1\frac{1}{2} \times 1\frac{1}{2} \times \frac{1}{8}$ in

- 219 C fragrans** Quél (*fragrans*, sweet-scented) *a b c*
P broadly depressed, pallid white, marg substrate *St* colour as *P* *G* adnato-decurrent, somewhat crowded
 Odour strong of anise Woods, pastures July-Jan $2\frac{1}{2} \times 3 \times \frac{3}{8}$ in Often attacked by the mould, *Sporodinia Aspergillus*
- 220 C angustissima** Gill (from its very narrow gills, *angustus*, narrow) *a b* Pallid white
P broadly umbilicate, very thin, firm *St* fibrous, flexuous *G* decurrent, very crowded
 Odour none Woods, amongst leaves Oct $2 \times 2\frac{1}{2} \times \frac{1}{8}$ in
- 221 C obsoleta** Quél (from its pallid tint, *obsoletus*, faint) *a c*
 Hygrophanous
P plano-depressed, pale grey or flesh-colour, soon white *St* not flexuous *G* adnato-decurrent, somewhat broad, pale grey
 Gregarious Slightly fragrant of bitter almonds or anise Amongst grass and leaves Oct-Nov $1\frac{1}{2} \times 1\frac{3}{4} \times \frac{1}{8}$ in
- f Verriformes*
- 222 C, ectypa** Gill (from the projecting sooty squamules in the middle of the pileus Gr *ektypos*, worked in relief) *a b*
P fleshy, plano-depressed, yellowish or brownish, marg striate *St* attenuate upwards, dull light yellow, becoming black at base *G* decurrent, white, then rufous-spotted
 Gregarious, often caespitose Odour pleasant of anise, becoming fetid Meadows, damp places Dec $2\frac{3}{4} \times 5\frac{1}{4} \times \frac{9}{16}$ in Often greatly resembles 69
- 223 C bella** Gill (*bellus*, beautiful) *a c*
P convex, umbilicato-depressed, orange, sq rufescent *St* pale orange *G* adnato-toothed, broad, yellow, rufescent or pale flesh colour
 Subcaespitose Fetid Plantations, fir, sometimes on rotten fir wood, uncommon Sept $1\frac{1}{2} \times 1\frac{3}{4} \times \frac{3}{16}$ in
- 224 C laccata** Quél (from the red colour—as of gum-lac—of the pileus) *a b c*
P convex, plano umbilicate, then repand, mealy-squamulose, rufescent, becoming ochreous *St* usually attenuate downwards, fibrillose, colour as *P* *G* adnato-toothed, flesh-colour
 Odour sometimes of garlic Woods, forests, commons, common May-Dec $2 \times 3 \times \frac{3}{8}$ in The pileus is sometimes brilliant or blackish purple, becoming lavender, with stem and gills bright purple (*Agaricus amethystinus* Bolt) A very small form with a hair like stem occurs
Agaricus Sadleri B & Br placed in this position by Stevenson is probably the same as 824 Berkeley has proposed a new genus, *Laccaria*, for the reception of 224 and its allies
- 224a C proxima** Boud (from its being like the brown form of 224) *a*
P convex, then plane, glabrous, yellowish-brown *St* even, smooth, paler than *P* *G* adnato-decurrent, somewhat pink
 Woods Oct $1\frac{3}{4} \times 2\frac{1}{4} \times \frac{3}{16}$ in Differs from 224 in the glabrous *P* and warted spores

VIII COLLYBIA Qué1

(From the pileus, which is frequently small and regular in form like a small coin, Gr *kollubos*)

Vul almost obsolete, when present represented by a fibrillose, floccose, or pruinose covering *Hymenophore* confluent with, but heterogeneous from the cartilaginous stem *Pileus* slightly fleshy to

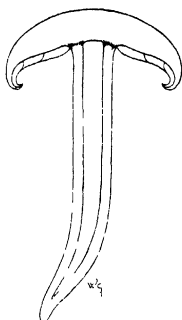


Fig. 17 — Section of *Collybia munita* Qué1 One third natural size

thin, margin at first involute *Stem* central, wholly cartilaginous, or with a cartilaginous bark and stuffed with a pith often rooting, simple *Gills* membranous, soft, free or adnixed *Sporis* smooth (Fig. 17)

Often small, frequently somewhat tough, maturing more slowly and lasting longer than other Agarics The species grow on stumps, branches and leaves, sometimes on other fungi or on the ground. Must be carefully distinguished from members of *Marasmius*, where the species are less fleshy, less putrescent, more leathery, and revive with moisture after becoming dry. Species 225—286

A *Gills* white or brightly coloured, not ash *Flush* white

a Struipedes *Stem* stout, hollow, or with a spongy pith, longitudinally striate, except 225a

Gills broad, except 228, somewhat distant 225—229

Gills crowded, narrow 230—236

b Vestipedes *Stem* thin, equal, fistulose or with a pith, even, velvety, floccose, or pruinose

Gills broad, somewhat distant 237—242

Gills very narrow, very crowded 243—249

- c Lævipedes* Stem thin, equal, fistulose naked, smooth except at base, not conspicuously striate
Gills usually broad, lax, commonly more or less distant

250—260

Gills narrow, crowded except 270

261—270

B *Gills becoming cinereous* Hygrophanous

- d Tiphrophanæ* Colour fuscous, becoming cinereous

Gills crowded, somewhat narrow

271—278

Gills very broad, except 285, more or less distant 279—286

*a Stripedis***225 C radicata** Quel (from the rooting stem, *radix*, a root) *a b c*

- P* glutinous, umber mid radiato-rugose *St* rigid, brittle, attenuate downwards, deeply rooting, white *G* adnexed or radiate, sometimes with a tooth

Solitary On and about stumps, amongst fir-leaves, common June—Nov
 $4\frac{1}{2} \times 1-2\frac{1}{2} \times \frac{1}{2}$ in There is a white variety

225a C, Henriettæ Sacc (after Henrietta Smith, who first found it) *a b*

- P* dry, even, somewhat downy, somewhat yellowish-umber
St attenuate upwards, even, slightly rooting, subpruinose, pale, pallid yellowish-brown within and without, somewhat darker below *G* broad, broadly radiate, distant, slightly rounded near *St* *Flesh* very thin

On and about trees, stumps, etc Sept $4 \times 7\frac{1}{2} \times \frac{1}{2}$ in Intermediate between 225 and 226

225b C retigera Bres (from the net-like veining of the pileus *rete*, a net, *gero*, to carry) *a b*

- P* thin, campanulate, expanded, subumbonate dry, glabrous, with a network of anastomosing veins best seen when old, pallid, mid shaded tawny brown marg striate *St* equal, solid to stuffed, pallid, minutely downy at base, somewhat rooting *G* somewhat broad, ventricose, edge fimbriate, pallid

Bases of stumps, ash, beech Dec $2 \times 3\frac{1}{2} \times \frac{1}{2}$ in

226 C longipes Quel (from the long stem *longus*, long, *pes*, a foot) *a b c*

- P* dry, velvety, livid brown *St* attenuate downwards, deeply rooting, villous, dark brown, varying paler *G* rounded, adnexed, white

Stumps, etc, uncommon Aug—Oct $2\frac{1}{2} \times 9\frac{1}{2} \times \frac{1}{2}$ in

226a C eriocephala Rea (from the velvety pileus, Gr *erion*, wool, *kephale*, a head) *a*

- P* convex, expanded, velvety, fulvous tawny *St* stuffed, then hollow, fusiform, extended into abundant long branched rhizomorphoid proliferous brown mycelium, striate, mid

slightly velvety, colour as P above but paler, brown below
G sinuato-adnate, distant, pale to deep ochre *Flesh* thick at
 mid, thin at marg, yellow-white, then yellowish, rufous
 externally at base

Cespitose Interior rotten elm Jan $2\frac{1}{2} \times 3\frac{1}{2} \times \frac{3}{8}$ in Rooting base $4\frac{1}{2}$ in

227 C platyphylla Quél (from the broad gills, Gr *platus*, broad,
phyllon, a leaf) *a b c*

P flat, ashy- or livid-yellow-brown to sepia, streaked fibrillose
St not attenuate or rooting, colour as P *G* adnate or
 adnexed

Woods amongst leaves, on rotten logs, rare May-Oct $4\frac{1}{2} \times 4\frac{1}{2} \times \frac{3}{8}$ in
 Frequently springs from a villous cord like mycelium The var *repens*
 Gill resembles 105

228 C semitalis Quél (from its growing in footpaths, *semita*) *a b c*

P plane, hygrophanous, sooty brown, yellowish or grey when
 dry *St* attenuate upwards, greyish *G* sometimes narrow,
 adnato rounded, sometimes with a tooth, white, brown-spotted

Sometimes caespitose On the ground after much rain Oct-Nov
 $3\frac{1}{2} \times 4\frac{1}{2} \times \frac{1}{2}$ in Sometimes turns black Compare 227

229 C fusipes Quél (from the spindle shaped stem *fusus*, a
 spindle, *pes*, a foot) *a b c*

P convex, umbonate, brown *St* attenuate downwards, rooting,
 often split, yellowish *G* adnexed, pale brown, pinkish,
 faintly brown-spotted

Cespitose Considered edible by some persons Stumps, common June-
 Nov $2\frac{1}{2} \times 4\frac{1}{2} \times \frac{1}{2}$ in Var *adumalopus* has a stout ventricose *St*

229a C lanceipes Gill (from a fancied resemblance in a longitudinal
 section of the stem to the blade of a spear *lanca*, a spear,
pes, a foot) *a b*

P convex, expanded, umbonate, radially rugose from mid, dry,
 glabrous, pale flesh-colour, becoming pallid marg striate
St solid or stuffed with twisted filaments, striate, gradually
 attenuate to the rooting, downy base, whitish or pale flesh-
 colour *G* adnexed, emarginate, broad behind, distant, thick,
 firm, connected with veins, pale flesh-colour *Flesh* thick,
 firm, not watery

Solitary, scattered, rarely clustered On the ground Autumn $2\frac{1}{2} \times 5 \times \frac{3}{4}$ in
 Every part firm and rigid

230 C maculata Quél (from its fox's stains *macula*, a spot) *a b c*

White or pale brown, spotted—sometimes wholly - rufescent
P convexo-plane *St* hard, subventricose, attenuate downwards,
 sometimes deeply rooting *G* rounded free

Taste slightly acid, unpleasant, odour not unpleasant Woods, chiefly pine,
 beech, alder, moist places May-Nov $3\frac{1}{2} \times 4\frac{1}{2} \times \frac{3}{4}$ in There is a
 permanently whitish or white var *immaculata* Mass, with *G* sometimes
 abnormal, labyrinthiform, meruloid Var *scorzonerea* Gill Small,
 yellow, *St* long rooting, *G* yellow

- 231 C* fodiens** W G Sm, *Agaricus fodiens* Kalch (from the rooting stem, *fodiens*, digging) *a*
P convex, faintly yellowish, mid ochreous-flesh-colour *St* ventricose, attenuate downwards, rooting, white *G* rounded or emarginate-free, yellowish-white
 Odour of meal Grass borders Oct $3\frac{1}{2} \times 5\frac{1}{4} \times 1$ in
- 232 C proluxa** Gill (from the stretched out appearance of the pileus, *proluxus*, stretched out) *a b*
P campanulate, subumbonate, rufescent-brown, mid darker *St* solid or imperfectly hollow, often contorted, paler than *P*
G rounded-free, whitish, unspotted
 In dense clusters on leaf heaps Aug-Sept $4\frac{1}{2} \times 4\frac{1}{4} \times \frac{1}{2}$ in
- 233 C distorta** Quel (from the twisted stem) *a b c*
P convex, subumbonate, buff-brown, mid darker, usually with darker blotches *St* attenuate upwards, pale brown *G* rounded-free, livid white, stained brown if bruised
 Gregarious or fasciculate Taste insipid odour strong, mephitic, like 35
 On tree roots, pine, rotten pine trunks, heaps of leaves Oct-Nov $2\frac{1}{2} \times 4 \times \frac{3}{8}$ in Somewhat resembling 230
- 234 C butyracea** Quel (from the pileus, buttery to the touch, *butyrum*, butter) *a b c*
P plane, subumbonate, pale brown with a darker marginal zone, mid almost black *St* attenuate upwards, pale rufescent or ochreous-brown *G* adnexed, white *Flsh* pale brown
 Woods, fir Jan-Dec $3\frac{1}{2} \times 2\frac{1}{2} \times \frac{1}{2}$ in Becomes whitish when dry
- 234a C bibulosa** Mass (from the bibulous substance) *a b*
P fleshy, subglobose, obtuse, expanded, moist, very smooth, even, deep olive- or blackish-green when moist, pale grey to whitish when dry *St* cartilaginous, spongy within, stuffed to imperfectly hollow, attenuate upwards, minutely striate, pale clear warm-brown, often rooting into the wood *G* adnexo-rounded, thin, edge subundulate, dingy
 In groups of three or four Stumps Autumn $2 \times 3 \times \frac{3}{8}$ in
- 235 C stridula** Quel (*stridulo*, to creak, derivation obscure) *a b*
P broadly umbonate-plane, dark brown *St* fibrous, paler than *P* *G* adnexed, pale brown
 On the ground Oct $2\frac{1}{2} \times 2\frac{1}{2} \times \frac{1}{4}$ in
- 235a C pulla** Gill (from *pullus*, dark-coloured) *a b*
P fleshy, thin, fragile, campanulate, then expanded obtuse, smooth, even, glabrous, hygrophanous, shining dark rich brown, purplish-bay, livid purplish-slate or nearly black, paler when dry *St* hollow, twisted, somewhat striate, soft, naked, sometimes slightly rooting, whitish *G* adnexed, somewhat broad, crowded, transversely pellucid-striate, whitish *Flsh* white
 Under birch trees, amongst *Polytrichum* Oct $2\frac{1}{2} \times 3\frac{7}{8} \times \frac{1}{4}$ in

236 C xylophila Gill (Gr *xulon*, timber, *philos*, loving) *a*

P campanulate, subpapillate, very thin, ivory-white, mid ivory-buff *St* ivory-buff, pale yellowish-brown within *G* adnate with 1 tooth, white

Gregarious, caespitose Stumps and rotten trunks of elm, etc Sept $3\frac{1}{2} \times 3 \times \frac{1}{4}$ in

*b Vistripides***237 C velutipes** Qué1 (from the velvety stem, *cellus*, fleece, *pes*, a foot) *a b c*

P plane, fleshy, viscid, yellow, mid brown *St* yellow above, brown and almost black towards base, or wholly brown *G* adnate or adnexed, pallid white or yellowish

Cespitose Taste agreeable Trunks stumps sometimes on timber common Aug-April $2\frac{5}{8} \times 2\frac{1}{2} \times \frac{1}{8}$ in Sometimes springs from a luxuriant golden byssoid mycelium (*Ozonium auricomum* Link), sometimes from thick cord like, branching and deeply rooting mycelium or from a sclerotium See 1569 The var *rubeo-ces* Sacc becomes foxy spotted

238 C laxipes Qué1 (from the lax stem, *laxus*, lax, *pes*, a foot) *a b*

P convexo-plane, moist, white *St* white above, rich brown below *G* adnexo-free, white

On wood, chips, twigs Feb $\frac{5}{8} \times 3\frac{1}{2} \times \frac{1}{8}$ in

239 C mimica Sacc (from its resemblance to 709) *a b*

P flat, thin, smooth, with a separable cuticle pale yellow-buff, mid buff-brownish *St* solid apex subpruinose with brownish bark, attenuate downwards, fibrilloso-strigose at base, yellow-buff above, deep brown below *G* adnate with a tooth

Taste and odour strong of fish On deal shavings Nov $1\frac{1}{2} \times 2 \times \frac{1}{2}$ in

240 C floceipes, Gill (from the floccose-woolly stem, *floccosus*, floccose, *pes*, a foot) *a b*

P plane, umbonate, deep umber *St* hollow, black punctato-floccose on a white ground *G* adnexed, white

On the ground and about trunks Sept $1\frac{1}{2} \times 2 \times \frac{1}{4}$ in

241 C vertirugis Sacc (from the rugose pileus, *vertix*, the top, *ruga*, a wrinkle) *a b c*

P convexo-plane, radiato-wrinkled, minutely pulverulent, brown-ashy or indigo-lead colour *St* strigose at base, brown, paler above *G* adnate, whitish

Rootstocks of dead ferns, twigs, stumps, etc Sept-Oct $\frac{7}{8} \times 3\frac{1}{2} \times \frac{1}{8}$ in

242 C stipitaria Gill (from its habitat, *stipes*, a stem) *a b c*

P umbilicato-plane, velvety or fibrillose, mid pale ochre to sienna, marg whitish *St* tough, fibrilloso-shaggy, light to dark sienna *G* adnexo-free, white

Frequent July-Nov $\frac{3}{8} \times 1\frac{5}{8} \times \frac{1}{8}$ in

- 243 C hariolorum** Quel (from its fancied use by soothsayers, *hariolus*, a soothsayer) *a b*

P campanulato-convex, smooth, pale ochreous-white, mid ochreous *St* colour as *P* or gradually dark fuscous below, naked and pallid above *G* adnato-free, whitish

Densely gregarious, somewhat caespitose Odour strong Woods, amongst dead leaves, beech, sometimes on rotten wood Sept $1\frac{3}{4} \times 2\frac{3}{4} \times \frac{1}{2}$ in Closely allied to *Marasmius*

- 244 C confluens** Quel (from the confluent stems) *a b c*

P convexo-plane or subumbonate, tough, white-buff *St* compressed, pulverulento-woolly, white or pale brownish-lavender or purplish

In troops or connate confluent rows Amongst fir leaves, frequent June-Oct $2 \times 3\frac{1}{2} \times \frac{1}{4}$ in Closely allied to *Marasmius*

- 245 C ingrata** Quel (from the unpleasant odour, *ingratus*, unpleasant) *a b*

P umbonate-expanded very thin, pale livid buff *St* brownish-purple, white mealy above *G* free, colour as *P*

Cespitose Taste none, or slightly sweet odour slight, mouldy fungoid, sweetish unpleasant Woods, pine damp places uncommon Aug-Oct $2\frac{1}{4} \times 3\frac{1}{2} \times \frac{1}{4}$ in There is a smaller form one half the size of type

- 246 C conigena** Quel (from its habitat, *conus*, a cone, *gigno*, to bear) *a b c*

P convexo-plane or slightly umbonate, smooth, whitish-ochre or brownish *St* strigose at base, white *G* adnexo-free, white

Usually gregarious Under conifers on the cones and amongst the leaves June-Dec $1 \times 2\frac{1}{2} \times \frac{1}{2}$ in Must not be confounded with 259 and 260

- 247 C cirrhata** Quel (from the twisted base of the stem, *cirrus*, a curl) *a b c*

P convexo-plane, slightly silky, white mid pale sienna *St* flexuous, attenuate and twisted at the smooth or strigosofibrillose base *G* adnate, white

$\frac{1}{2}$ In troops Amongst leaves of fir, etc., and decaying fungi Aug-Nov $\frac{1}{8} \times 3 \times \frac{1}{16}$ in Must not be confounded with 1424a

- 248 C tuberosa** Quel (from the tuberous base of the stem) *a b c*

P convexo-plane, subumbonate, slightly silky, white, mid faintly ochreous *St* slightly pulverulent, base smooth, sometimes fibrillose, occasionally proliferous, attached to a sclerotium *G* adnate, white

Gregarious On dead Agarics, *Russula* (1306 1307), *Lactarius*, on *Polyporus squamosus*, fir leaves, rotten fir twigs, amongst moss, etc Aug-Nov $2\frac{1}{2} \times 4\frac{1}{2} \times \frac{1}{8}$ in Fries says the summer form has no sclerotium, this is very doubtful The autumnal forms may have no sclerotium as the floccose mycelium condenses in winter and forms a summer sclerotium

- 249 C racemosa** Quel (from the glandular hairs round the stem, *racemus*, a cluster) *a b*

P expanded, papillate, subtomentose, white or faintly greyish *St* racemose, apparently proliferous with minute hairs bearing

glands or abortive pilei, colour as P Attached to *Sclerotium lacunosum* G adnate, white

Terrestrial and on putrid fungi, chiefly Agarics, very rare Autumn
 $\frac{3}{8} \times 1\frac{3}{4} \times \frac{1}{32}$ in Turns black in drying

c *Læripedes*

- 250 C collina** Quel (from its frequent habitat, *collinus*, a hill) a b c
 P expanded, subumbonate, somewhat viscid, pale yellowish-brown St colour as P G adnexo-toothed, white

Usually gregarious Grassy slopes, about beech stumps, uncommon Oct
 $2 \times 4\frac{1}{2} \times \frac{3}{16}$ in

- 251 C thelephora** Sacc (from its bearing a small umbo on the pileus, Gr *theli*, a nipple, *phero*, to bear) a b
 P campanulate, brown or yellow-brown, paler at marg St brown above and whitish below, or the reverse G adnato-toothed, white to yellowish

Gregarious Inodorous Peat bogs, partly dry sphagnum bogs $1\frac{1}{8} \times 3\frac{1}{2} \times \frac{1}{8}$ in
 A near ally of 250

- 252 C ventricosa** Gill (from the enlarged lower part of stem *venter*, the belly) a b c Pale warm brownish
 P campanulato-convex, slightly umbonate St attenuate upwards and attenuato-rooting, darker below G broadly adnato-toothed

Woods Oct $2\frac{3}{8} \times 3\frac{3}{8} \times \frac{3}{16}$ in

- 253 C Stevensonii** Sacc (after the Rev Dr Stevenson, mycologist) a
 P semi-ovate, viscid, pallid yellow St attenuate downwards, deeply rooting, whitish-yellow above, brownish below G very broad, adnato-toothed, white

Old pastures Aug $\frac{3}{8} \times 2\frac{3}{8} \times \frac{1}{16}$ in Resembling in habit members of *Psathyra*

- 254 C psathyroides** Sacc (from its resemblance to members of *Psathyra*) a Ivory-white

P semi-ovate or conic, subviscid St not rooting G broadly adnato-toothed

Oct $\frac{3}{8} \times 3\frac{3}{4} \times \frac{1}{8}$ in Greatly resembles a *Mycena* Allied to 253

- 255 C xanthopus** Quel (from the yellow stem, Gr *xanthos*, yellow, *pous*, a foot) a b c

P campanulato-convex, subumbonate, whitish to deep biscuit, um sienna St strigose at base, yellow to sienna-biscuit G adnexo-free, whitish

Pine woods, amongst cones, leaves and twigs July-Nov $1\frac{3}{4} \times 2\frac{1}{2} \times \frac{1}{8}$ in
 Not unlike 1394 in general appearance

- 256 C nitellina** Gill (from its colour, *nitella* a dormouse) a b

P convexo-plane, smooth, reddish-tan or brown, sometimes pale St yellow above, brown below, or tan G adnate, attenuate in front, tan

Solitary or gregarious Odour none By roads and paths in woods May-Oct $2\frac{1}{4} \times 3\frac{1}{4} \times \frac{1}{16}$ in There is a very small umbonate variety Allied to *Chilocybe*

- 257 C succinea** Quel (from its colour, *succinum*, amber) *a b c*
P plano-convex, smooth, deep rich brown *St* colour as *P*
G adnate, white
 Solitary Odour none Woods, mixed, grassy places, under trees May-Dec $1\frac{1}{2} \times 1\frac{1}{2} \times \frac{1}{4}$ in
- 258 C nummularia** Gill (from a fancied resemblance in the pileus to a small coin, *nummus*) *a c* White, sometimes faintly shaded ochreous or reddish
P expanded, slightly depressed, somewhat umbonate *St* attenuate downwards *G* adnexo-free
 In troops, caespitose Woods, mixed, amongst leaves and twigs July-Nov $1\frac{1}{2} \times 2\frac{1}{2} \times \frac{1}{8}$ in
- 259 C esculenta** Quel (from its edible qualities) *a b c*
P plane, dull ivory-ochreous to umber *St* attenuate downwards, deeply rooting, yellow to pale reddish-brown *G* adnexed to adnato-toothed, whitish
 Gregarious Edible Taste bitter, agreeable to some, unpleasant to others Pastures, grassy places near plantations, pine woods, sometimes on hotbeds, common April-May $1 \times 5 \times \frac{1}{10}$ in Sold in Austrian markets as food under the name Nagelschwamme
- 260 C tenacella** Quel (*tenax*, tough) *a b c*
P convexo-plane, subumbonate, brown or brownish to white *St* attenuate and fibrillose at base whitish above, rufescent below *G* adnexo-toothed, whitish
 Solitary or in troops Taste pleasant On leaves and cones in pine-woods, and under cedars April-Dec $1\frac{1}{2} \times 3\frac{1}{2} \times \frac{1}{2}$ in The var *stoloniter* Quel roots for four or more inches It is difficult to distinguish 260 from 259, and neither must be confused with 246
- 260a C planipes** Sacc (from the plane stem, *planus*, plane, *pes*, a foot) *a*
P orbicular, expanded, somewhat viscid, dry *St* rooting, colour of *P* *G* free
 Caespitose Woods Sept $\frac{7}{8} \times 1\frac{1}{2} \times \frac{1}{10}$ in
- 261 C acervata** Gill (from its growing in dense clusters, *acervus*, a heap) *a b*
P hemispherical, then flat, tan or brown *St* tan to deep rufous-brown *G* adnexo-free, salmon
 Woods, fir, dead wood, frequent Sept-Oct $2\frac{1}{2} \times 3\frac{1}{2} \times \frac{1}{4}$ in
- 262 C dryophila** Quel (Gr *dryus*, oak, *philos*, loving) *a b c*
P plane, tan, brown or brownish when soddened, mid faintly ochreous *St* villous at base, tan to brown *G* adnexo-free, whitish *Flesh* white
 Dangerous when cooked according to a case cited by Dr Badham (*Esculent Fungus*, 1863, p 107) The taste when raw leaves a burning sensation on the fauces and a sense of suffocation Amongst leaves, woods, hedge-bottoms, gardens, grassy places, common May-Oct $3\frac{1}{2} \times 4\frac{1}{2} \times \frac{1}{2}$ in Variable, gills sometimes sterile Var *funicularis* Karst Large, tufted, decumbent, *G* sulphur

- 263 C aquosa** Gill (from its watery substance, *aqua*, water) *a b c*
P plane to subdepressed, tan-ochreous to ochreous *St* fibrillose
 at base, ochreous-brown *G* adnexo-free, pale yellowish
 Woods, damp places, amongst moss Autumn $1\frac{1}{4} \times 2\frac{1}{4} \times \frac{1}{8}$ in
- 264. C extuberans** Quel (from the broad umbo, *extuberans*, swelling) *a b c*
P olive-brownish *St* attenuate downwards, pale grey-brownish
G adnexo-toothed, white
 Usually solitary when on the ground, caespitose and smaller when on trunks
 Odour none Amongst grass, hillsides May-Sept $1\frac{1}{4} \times 3\frac{1}{4} \times \frac{1}{16}$ in
- 265 C exsculpta** Gill (from the cut-out, sinuato-rounded gills) *a b c*
P plane, subumbilicate, dull ochreous-orange or umber, pale
 whitish-buff when dry mid darker *St* equal or subbulbous,
 ochreous or sulphur, darker below *G* adnato- or adnexo-
 toothed, subdecurrent, sulphury
 Gregarious Taste and odour strong, mushroom like, but with a suggestion
 of tar Trunks, dead wood, on the ground May-Oct $1\frac{1}{2} \times 2 \times \frac{1}{8}$ in
 Dry, tough, reviving with moisture after the manner of a *Marasmius*
- 266 C macilenta** Gill (*macilis*, leanness) *a*
P convexo-plane, subumbonate, deep yellow *St* yellow *G*
 adnexo-free, bright yellow *Flesh* pallid yellowish
 Woods, pine, on leaves Autumn $1\frac{1}{2} \times 2\frac{1}{2} \times \frac{1}{16}$ in Resembles some of
 the slender yellow *Hypophora*
- 267 C clavus** Quel (from the nail-like shape, *clavus*) *a c*
P hemispherical, orange vermilion *St* substingose at base,
 whitish, brownish below *G* adnexed whitish
 On fir, twigs, leaves, moss, rare Oct $\frac{1}{2} \times \frac{1}{4} \times \frac{1}{16}$ in
- 268 C ocellata** Quel (from the eye like umbonate umbilicus *ocellus*,
 a little eye) *a b c*
P white mid pale sienna *St* attenuate downwards, rooting,
 fibrillose, brownish-white, or buff above and white below *G*
 adnate, white
 Pine woods, amongst leaves, grassy places, on *Jungmannia* uncommon
 Sept-Oct $\frac{1}{8} \times 2 \times \frac{1}{16}$ in
- 269 C muscigena** Quel (from its habitat, *muscus*, moss, *gigno*, to
 bear) *a* White
P hemispherical, pellucid, thin *G* adnate
 Amongst moss and grass, near trunks Aug $\frac{1}{8} \times 1\frac{1}{2} \times \frac{1}{16}$ in
- 270 C leucomyosotis** Sacc (from its resemblance to a pale form of
 736, *Nauconia Myosotis*, Gr *leukos*, white) *a b*
P convex, broadly umbonate, pale translucent umber, marg
 striate *St* brittle, subpruinose above, colour as *P* *G*
 adnato-sinuate, thick, somewhat distant, whitish
 Strong scented, somewhat fragrant On *Sphagnum* in wet places in bogs
 May $1\frac{1}{8} \times 3\frac{1}{8} \times \frac{1}{4}$ in Whitish when dry

*d Tephrophanae***271 C raneida** Quel (from its rancid odour) *a b c*

P convex, umbonate, sometimes viscid, dark umber, slate or slate grey, or slate with mid umber *St* subfusiform, rooting, sometimes deeply, colour as *P* *G* adnexo-free, slaty flesh-colour, grey-white or almost white

Taste disagreeable odour strong and offensive when cut or broken, like rancid meal Woods, amongst trunks Oct-Nov $1\frac{1}{2} \times 4 \times \frac{1}{8}$ in

272 C eustygia Sacc (Stygian, from its becoming black) *a*

P convexo-plane, subdepressed, white or white-brownish *St* attenuate downwards, rooting, white above, grey and punctato-scaly below *G* adnexo-rounded, dark grey

Odour of rancid meal On the ground Oct $2\frac{1}{2} \times 3\frac{1}{2} \times \frac{1}{16}$ in Black when dry

273 C coracina Gill (from its colour Gr *korax* a raven) *a c*

P convexo-expanded, black to dark- or grey-umber *St* attenuate upwards, not rooting, white above, brown below *G* adnate, greyish or yellowish

Odour strong of new meal Grassy places fir plantations Nov $1\frac{1}{2} \times 1\frac{1}{2} \times 1$ in

274 C ozes Karst (Gr *ozo* to smell) *a*

P convexo-plane, subumbonate, grey- or clay-brown *St* slightly attenuate upwards, white above sooty-grey below *G* adnate, smoky-olivaceous

Odour of new meal On the ground and on pine leaves Feb $1\frac{1}{2} \times \frac{1}{4} \times \frac{1}{2}$ in

274a C mephitica Karst (from the offensive mephitic odour, sometimes, however, like new meal) *a*

P fleshy, convex, subumbonate hygrophanous, smooth dry, silky, greyish-ochre, becoming whitish *St* equal, enlarged below, stuffed, grey, white-floccose or pruinose-velvety *G* obtusely adnate, separating from stem attenuate in front, crowded grey *Flesh* yellowish

Amongst fir needles Oct $1\frac{1}{2} \times 2\frac{1}{2} \times \frac{1}{4}$ in

275 C inolens Quel (*inolens* scentless) *a*

P convexo-plane, umbonate, tan, greyish or rufous *St* attenuate upwards, slightly rooting at the white, stigmatic base *G* adfixed, almost free, whitish- or ochreous-grey

Woods, chiefly pine Sept-Nov $2\frac{1}{2} \times 2\frac{1}{2} \times \frac{1}{4}$ in

276 C plexipes Gill (from the twisted stem, *pleto*, to twist, *pes*, a foot) *a b c*

P hemispherical umbonate, pale umber or greyish mid darker *St* attenuate downwards, rooting, pale umber *G* narrowly adnate, whitish-grey *Flesh* pale umber

Odour none Woods, beech, amongst grass uncommon Sept-Nov $1\frac{1}{2} \times 6 \times \frac{1}{8}$ in

277 C atrata Qué! (*atr*, black) *a b c*

P plano-depressed, greasy feeling, blackish-umber *St* fuscous within and without *G* adnato-decurrent, livid-brownish

Scattered or in groups Odour strong, disagreeable On burnt ground often in company with 183 685 and 1374 Sept-Dec $1\frac{1}{2} \times 1\frac{1}{2} \times \frac{1}{8}$ in Must not be confounded with 369

278 C ambusta Qué! (from its habitat, burnt ground, *ambustus*, burnt) *a b c*

P convexo-plane, papillate, umber *St* paler than *P* *G* adnate with a tooth, pale umber *Flesh* colour as *G*

Odour of meal July-Nov $\frac{1}{2} \times 1\frac{1}{2} \times \frac{1}{16}$ in

279 C lacerata Gill (from the torn pileus) *a* White-grey or slightly ochreous-brown

P convex, shining, often cracked, sometimes brown-fibrillose *St* twisted *G* adnexed, thick

Somewhat crepitose Woods, pine, rare Autumn $2 \times 3 \times \frac{1}{4}$ in

280 C murina Gill (from its mouse-colour *mus*, a mouse) *a*

P convex, subdepressed, brown, becoming paler *G* attenuato-adnexed

Woods, under oaks Oct $1\frac{1}{2} \times 2\frac{3}{4} \times \frac{1}{2}$ in

281 C protracta Gill (from the long stem, *protractus*, drawn out) *a b*

P convexo-plan, slightly umbonate-depressed, grey-brown or slaty flesh-colour *St* attenuate downwards, rooting, strigose, colour as *P*, dark slate-colour below *G* adfixed, ventricose, grey, white-pruinose

Mossy ground near stumps of pine, etc, amongst dead leaves Aug-Nov $1\frac{1}{2} \times 8 \times \frac{1}{2}$ in

282 C tesquorum Gill (from its growing in waste places, *tesqua*) *a*

P convex or umbonate, fuscous-black or olive brown *St* white above, brown below *G* adnexo-free, ashy-fuscous or pale olive-brown

Scattered Amongst grass, sunny banks $\frac{3}{4} \times 1\frac{1}{2} \times \frac{1}{16}$ in

283 C elusilis Gill (*elusilis*, easily closing, derivation obscure) *a b c*

P convexo-plane, depressed, whitish tan or greyish mid faintly ochreous *St* shining, colour as *P*, or paler *G* adnato-toothed, colour as *St*

Amongst moss, grass, often with 597 Sept-Oct $1\frac{1}{2} \times 2\frac{1}{2} \times \frac{1}{2}$ in

284 C tylicolor Gill (from its colour, that of a small worm, *Gr tulos*) *a b c*

P plano umbonate, ashy-grey or brown, mid darker *St* wavy, whitish pulverulent on a grey-brown ground *G* adnato-free, varying in attachment, livid-brownish or grey *Flesh* pale brown

Taste slightly rank, odour weak or none Shady woods amongst grass Oct $1\frac{1}{4} \times 2\frac{1}{2} \times \frac{1}{2}$ in

285 C DOROTHEÆ Sacc (after Lady Dorothy Neville) *a*

P globose, then flat, slightly umbilicate, very thin, dark brown, marg denticulate *St* slightly swollen at base, minutely velvety, white, yellowish or rufous *G* adnexed, narrow, white

On dead fern stems in hothouses $1\frac{1}{2} \times 3\frac{1}{4} \times \frac{1}{16}$ in

286 C CALDARII Sacc (from its habitat, a caldarium or hot-house) *a*

P hemispherical, slightly umbonate, brown *St* paler than *P*
G adnato-decurrent, somewhat ashy

On *Spha-num* in orchid pot $\frac{5}{8} \times 2\frac{1}{8} \times \frac{1}{16}$ in

IX MYCENA Quel

((*ex mus*, a fungus)

Vel almost obsolete, only seen in fibrillæ, pile, flock, tomentum or gluten. In Section *h*, *Basipedis*, the edge of the pileus is connected with the circumference of the basal disc in infancy, and

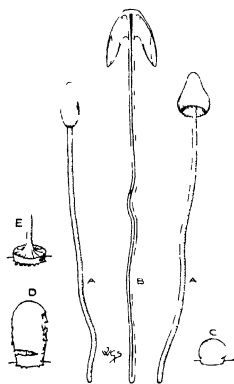


Fig 18 — A *Mycena phlegmaria* Quel
B ditto in section. One half natural size
C *M. minima* Quel young state showing
basal disc and veil D *M. strobilata* Quel
young state showing basal disc and veil
E basal disc C D E enlarged

so forms a kind of universal veil. *Hymenophore* confluent with but heterogeneous from the cartilaginous stem. *Pileus* at first conico-cylindrical, becoming more or less campanulate, submembranous, not cartilaginous, never truly umbilicate, margin more or less

striate, at first adpressed to the stem, never involute. A few species as the next genus is approached have the pileus slightly depressed. *Stem* simple, slender, central, fistulose (except 310) and cartilaginous, sometimes hair-like, sometimes rooting amongst dead leaves. *Gills* adnate or adnexed, often sinuate, varied in attachment, not truly decurrent, often minutely denticulate or fringed at the edge (Fig. 18).

Most of the species grow on twigs, stumps, dead branches and dead leaves; some grow on the ground. They are usually slender, small, beautiful and scentless, some have a strong alkaline or mephitic odour; some contain a coloured juice termed milk. They appear after rain in summer and autumn; a few remain till early winter. Species 287—366

- a *Calodontes*. *Stem* juiceless, base not dilated into a disc. *Gills* saw-edged or fimbriate, darker edged. 287—297
- b *Adonidæ*. *Colour* pure and bright, not becoming fuscous or ashy, except 300. *Stem* juiceless, base not dilated into a disc. *Gills* of one colour, including the edge. Single, terrestrial, except 306 and sometimes 305. 298—306
- c *Rigidipedes*. *Stem* firm tough, juiceless, somewhat strigose and rooting. *Gills* white changing to grey or reddish. Persistent, odourless, usually growing on stumps and very caespitose; but single examples occur on the ground. 307—316
- d *Fragilipedes*. *Pileus* hygrophanous. *Stem* fragile, juiceless, not dilated into a disc at the base. *Gills* changing colour. Normally terrestrial and single, a few caespitose and growing on wood. Strong smelling. 317—334
- e *Filipedes*. Not hygrophanous. *Stem* juiceless. *Gills* changing colour. Terrestrial amongst grass, usually single. 335—342
- f *Lactipedes*. Whole plant exuding a white or coloured juice. 343—349
- g *Glutinipedes*. *Stem* glutinous. Must not be confounded with species with smooth, moist or slippery stems. 350—356
- h *Basipedes*. A small dilated base, bulb or disc at the base of the dry, equal, stem. Usually solitary. 357—361
- i *Institutæ*. *Stem* apparently inserted or grafted into dead leaves, etc. Soon flaccid, very tender. 362—366

a *Calodontes*

287 **M. pelianthina** Quel. (from the livid pileus, Gr. *pelaino*, to make livid) a b

P umbonato-convex, pale brown, dull flesh-colour or lavender, whitish when dry. *St* ochreous-whitish or whitish lavender

G adnate, purplish or brownish-white, minutely black-dotted at edge *Flesh* white to faintly purplish

Woods, beech, oak, stumps and dead leaves Aug-Oct $1\frac{1}{2} \times 3\frac{1}{2} \times 1\frac{1}{8}$ in
Somewhat resembles 224

- 287a **M carneosanguinea** Rea (from the change of colour in the flesh—on section—from white to blood-red *caro*, flesh, *sanguis*, blood) *a*

P convex, subumbonate, smooth, livid-grey mid tinging to rufous, paler when old *St* grey, yellowish below, base clad with short mycelial threads *G* adnate, dull purplish-brown with a crimson-red edge *Flesh* moderately thick at mid of *P* and apex of *St*, white, changing above to bright rose or blood-red

Woods Aug $1\frac{1}{2} \times 1\frac{1}{4} \times \frac{1}{4}$ in

- 288 **M balanina** Karst (from its frequent habitat, beech-mast, *Gr balanos*) *a b*

P convexo-umbonate, granulose umber-ochreous *St* attenuate downwards, satiny, white above, deep brown below *G* rounded, free, sprinkled and fringed with dull purple spiculæ

Beech mast acorns, oak-leaves, rare Sept $1\frac{1}{2} \times 3\frac{1}{2} \times \frac{1}{8}$ in

- 289 **M iris** Quel (from its rainbow tints *Gr iris* the rainbow) *a b c*

P hemispherical, evanescent blue fibrillose on a pale umber lead-coloured or greenish ground mid sometimes cobalt *St* pilose, pale umber above bright blue-fibrillose at base *G* adnexo-free, forming a collar behind sometimes denticulate ashv

On decayed twigs, stumps, chips sticks and cones of fir, often deeply rooting amongst pine leaves Sept-Nov $\frac{1}{2} \times 3\frac{1}{4} \times \frac{1}{4}$ in

- 290 **M mirabilis** Quel (*mirabilis*, wonderful) *a*

P conical, dull lavender-blue mid ochreous *St* floccose, sub-rooting, bluish below *G* adnexed, white, edge dotted with dark particles

Fir trunks, amongst *Hyphnum* Aug $\frac{1}{2} \times 3 \times 1\frac{1}{8}$ in Perhaps the same as 291

- 291 **M marginella** Quel (from the minute fringe at the margin of the gills) *a*

P conico-convex, floccose, pallid, marg dull bluish *St* tomentose and bluish below *G* adnate or adnexed, white, edge bluish- or reddish-flocculose

Fir trunks amongst *Hyphnum cupressiforme* Aug-Sept $\frac{1}{2} \times 2\frac{1}{2} \times 1\frac{1}{8}$ in

- 292 **M aurantiomarginata** Quel (from the orange margin of the gills) *a*

P hemispherical, umbonate, olive-brown *St* attenuate upwards, pale yellowish *G* attenuato-adnexed with a tooth, whitish, floccose at edge

Odour strong Woods, silver fir Nov $1\frac{1}{8} \times 1\frac{1}{8} \times \frac{1}{8}$ in

293 M elegans Quel (*elegans*, neat) *a b c*

P campanulate, livid yellowish, mid fuscous *St* floccose at base, livid-yellowish *G* adnato-decurrent, whitish or yellowish, edge orange

Odour weak of fennel or none Woods, chiefly pine, fir leaves, stems of *Rubus* frequent Aug-Nov $\frac{3}{4} \times 2\frac{3}{4} \times \frac{1}{16}$ in

294 M rubromarginata Gill (from the red margin of the gills) *a c*

P hemispherical, subumbonate, white or pale reddish *St* white *G* adnato-decurrent, whitish or grey, edge rose or brown-purple

Odour none On branches, leaves and rotten twigs in woods, chiefly pine and larch frequent July-Nov $\frac{5}{8} \times 1\frac{1}{2} \times \frac{1}{16}$ in A variety, *fuscopurpurea* Mass, with a dusky purple pileus, grows on willows

295 M olivaceomarginata Mass (from the olive margin of the gills) *a b*

P conico-hemispherical, subumbonate, honey-colour *St* colour as *P*, base tinged rufous *G* uncinato-adnexed, broad, subdistant, pallid with a brownish-olive edge

Woods, lawns Oct $\frac{3}{4} \times 1\frac{1}{2} \times \frac{1}{16}$ in

296 M strobilina Gill (from its usual habitat, fir-cones *strabilus*) *a b*

P campanulate, acutely umbonate, scarlet, paler at marg *St* scarlet, white-strigose at base *G* adnato-decurrent, paler than *P*, edge blackish-scarlet *Flesh* crimson

Cones, leaves and twigs of Scotch fir, sometimes in beech woods, rare Oct $\frac{3}{4} \times 2 \times \frac{1}{16}$ in

297 M rosella Quel (*rosens*, rose-coloured) *a b c*

P campanulate, subumbonate, deep or pale rose *St* colour as *P*, seldom strigose at base *G* adnate, pale rose, edge dark purple

Laxly gregarious Amongst leaves, twigs, and decaying cones in fir woods, uncommon June-Dec $\frac{7}{8} \times 1\frac{1}{4} \times \frac{1}{16}$ in

*b Adonidæ***298 M pura** Quel (from its pure colour) *a b c*

P campanulate, broadly umbonate, brittle, flesh-colour, variable in shade *St* often rooting, flesh-colour, pale ochraceous below *G* sinuato-adnate, veined, whitish to pale flesh-colour

Taste and odour strong, hot, disagreeable, pungent of radish or cabbage stalk Woods, meadows, common June-Nov $2 \times 4 \times \frac{1}{4}$ in There is a white variety Varies larger and smaller, sometimes very dark when dry Sometimes attacked by *Mucor macrocarpus*

299 M pseudopura Sacc (from its resemblance to 298, Gr *pseudos*, false) *a*

Structure and colour same as 298, of which it is probably one of the smaller forms Colour rosy *G* whitish

Odour none Woods Autumn $1 \times 2\frac{3}{4} \times \frac{1}{16}$ in

- 300 M zephira** Quel (from its coming with the rain-wind or west wind Zephyros) *a c*

P hemispherical, diaphanous, white flesh-colour, mid often fuscous *St* white to flesh-colour *G* adnate, veined, white

Decayed fir, amongst dead leaves in woods Sept-Dec $1\frac{3}{8} \times 3\frac{1}{2} \times \frac{1}{8}$ in
G and *P* sometimes foxy stained

- 301 M Adonis** Quel (from its beauty—like Adonis) *a b*

P conico-campanulate, white, yellow, greenish, orange or crimson *St* lighter than *P* *G* ascending, adnexo-toothed or adnate, colour as *St*

Woods, pastures, uncommon Sept-Nov $\frac{3}{8} \times 2\frac{1}{2} \times \frac{1}{8}$ in

- 302 M lineata** Quel (from the lined or sulcate pileus) *a b*

P plane, subumbonate, membranous, pale yellowish *St* colour as *P* *G* adnate, white *Flesh* pale brownish

Amongst moss Sept-Oct $1 \times 2\frac{1}{4} \times \frac{1}{8}$ in Colour variable

- 302a M farrea** Quel (from the pileus, the colour of ripe wheat and powdered as if with flour *farreus*, made of spelt) *a*

P very thin, campanulate-expanded, subumbonate, pale buff-yellowish, becoming pale, shining white pulverulent, marg sulcate, crenulate *St* somewhat rooting, silky-striate, pale steel-grey, white pulverulent above *G* adnate, thin, connected with veins, somewhat fimbriate, white

Mossy and grassy places $1 \times 3\frac{1}{8} \times \frac{1}{8}$ in This and 336a are the only species of the genus with pulverulent pilei

- 303 M luteoalba** Quel (*luteus*, yellow, *albus*, white) *a b c*

P expanded, umbonate, pale yellow *St* white, faint yellowish at base *G* adnato-toothed, shining white

Woods, fir, amongst moss, uncommon Aug-Nov $\frac{3}{8} \times 1\frac{1}{4} \times \frac{1}{8}$ in

- 304 M flavoalba** Quel (*flavus*, light yellow *albus*, white) *a b c*

P expanded, broadly umbonate, ochre biscuit, paler at marg *St* faint yellowish at base *G* adnexed or adnate, distant, white

In troops Woods and meadows, under firs, frequent July-Dec $1 \times 1\frac{3}{8} \times \frac{1}{8}$ in

- 305 M lactea** Quel (from the milk-white colour *lac*, milk) *a b c*

P campanulate, umbonate, varying faint biscuit *St* attenuate upwards, fibrillose at base *G* adnato-rounded or sinuate, crowded

Scattered, rarely caespitose Woods, chiefly amongst and on pine leaves, common July-Dec $1 \times 2\frac{3}{4} \times \frac{1}{8}$ in Must be carefully distinguished from other species of the genus which become white

- 306 M gypsea** Quel (from its colour, like gypsum) *a b*

P conico-campanulate, umbonate mid faintly biscuit *St* attenuate upwards, strigose at the faintly biscuit base *G* adnexo-ascending or adnate

Cespitose Tasteless, odour alkaline, varying strong to weak Stumps June-Nov $\frac{3}{8} \times 3\frac{1}{2} \times \frac{1}{8}$ in

c Rigidipedes

- 307 M cohærens** Gill (from the adherent stems *cohæro*, to stick together) *a c*

P campanulate, broadly umbonate pale amber, cinnamon or orange-brown mid darker marg striate *St* even, smooth, shining whitish above, downy and ochreous-whitish to dark brown below *G* rounded-free distant, white to yellowish or greenish *Flesh* brown

Sometimes solitary Brambles, pine leaves etc., on the ground Oct–Feb
 $1\frac{1}{2} \times 4\frac{1}{2} \times \frac{1}{2}$ in Resembles 313 (var *calopus*)

- 307a M Berkeleyi** Mass (after the Rev M J Berkeley) *a*

P campanulate, expanded, subumbonate, hygrophanous, dull brown um darker and brighter, paler when dry marg striate *St* with a tapering rooting base, somewhat striate dull pale brownish with a purple tinge *G* adnate-sinuate with a decurrent tooth, subdistant, ventricose, thin, tinged purplish or flesh-colour *Flesh* pale flesh-colour, tinged purplish

Solitary or subcespitose Tree trunks $3\frac{1}{2} \times 5 \times \frac{1}{4}$ in Rooting base, $2\frac{1}{2}$ in
 May be the same as 309

- 308 M prolifera** Gill (from the stem, sometimes densely proliferous with small individuals at the base) *a b*

P campanulate-expanded, broadly umbonate, pale amber marg sulcate *St* ventricose, splitting, white *G* adnexed or adnate, white

Inodorous at length nauseous Woods and gardens, on gravel, near bushes.
 Sept–Oct $1\frac{1}{2} \times 6 \times \frac{1}{4}$ in There is a white variety

- 309 M excisa** Gill (from the cut-out gills) *a c*

P expanded, umbonate, brown, mid darker *St* as in 308, pale brown, white above *G* adnexed or sinuate-free, thick, distant, hoary veined, white, pale brown or purplish

Woods, trunks sometimes on the ground Sept–Oct $2\frac{1}{2} \times 4 \times \frac{1}{4}$ in
 Var *fragiliorum* Karst Small, amongst beech leaves

- 310 M psammicola** Sacc (from its habitat Gr *psammes*, sand) *a*

P hemispherical, sprinkled with minute particles, brown marg whitish *St* solid, rooting, white pulverulent on a brownish ground *G* adnate, white

Sandy banks amongst moss Sept $\frac{1}{2} \times 1\frac{1}{2} \times \frac{1}{2}$ in

- 311 M rugosa** Quel (from the wrinkled pileus *rugosa*, a wrinkle) *a b*

P expanded subumbonate, pale grey-brown mid brownish *St* subventricose, colour as *P* *G* adnate-toothed, whitish

Tasteless or at length slightly bitter On and near stumps, common
 July–Dec $2\frac{1}{2} \times 3\frac{1}{2} \times \frac{1}{2}$ in Very tough and dry

- 312 M sudora** Gill (from the viscid pileus *sudor*, sweat) *a b c*

P campanulate, umbonate, whitish, livid biscuit or brownish *St* colour as *P* *G* adnate, white, flesh-colour or yellowish-white

Usually solitary Stumps, beech Aug–Nov $1\frac{1}{2} \times 5\frac{1}{2} \times \frac{1}{2}$ in Colour often like 350 or 1228

- 313 M galericulata** Quel (from the shape of the pileus *galericulum*, a little cap) *a b c*

P expanded, broadly umbonate, pale brown, mid darker *St* colour as *P* *G* adnato-toothed, veined, white to pale rose

Usually tasteless Stumps, bramble, willow, and on the ground, common July-Jan $2\frac{1}{2} \times 4\frac{1}{2} \times \frac{3}{16}$ in Var *calopus* Karst has an umber pileus and dark sienna stem *Mucor macrocarpus* is frequent on this species

- 314 M polygramma** Quel (from the longitudinally striate stem, *Gr polus*, many, *gramme*, a stroke) *a b c*

P campanulate, umbonate, pale to dark brown *St* steel-grey *G* adnato toothed, attenuate near *St*, pale salmon

Gregarious Odour disagreeable, or none Stumps, common Sept-Jan $2 \times 5\frac{1}{2} \times \frac{1}{8}$ in

- 315 M parabolica** Quel (from the parabolic curves of the pileus) *a b c*

P conico-campanulate, sides incurved, slate, mid umber *St* attenuate upwards colour as *P*, paler below *G* adnato-ascending, white or faint grey *Flesh* brownish-grey

Gregarious or caespitose Rotten wood, stumps, especially fir, willow, fern, uncommon Sept-Dec $1\frac{1}{2} \times 2\frac{1}{2} \times \frac{1}{8}$ in

- 316 M tintinnabulum** Quel (from the bell-shaped pileus, *tintinnabulum*, a bell) *a b*

P plane, subumbonate umber varying bluish, yellow-brownish and whitish *St* white *G* adnate with a tooth, white or pale flesh-colour

Gregarious, sometimes caespitose Fallen trunks, beech April-Dec $1\frac{1}{2} \times 1\frac{1}{2} \times \frac{1}{8}$ in

d Fragilipiles

- 317 M CODONICEPS** Sacc (from the bell-shaped pileus *Gr kodon*, a bell *lephale* a head) *a b*

P campanulate, obscurely sulcate and rugulose, hispid, umber, marg recurved *St* attenuate downwards, moist, smooth, white above, umber below *G* verticilly ascending, somewhat thick, distant, adnate with a tooth, white

Single or caespitose Tree fern stems June $\frac{1}{8} \times \frac{1}{2} \times \frac{1}{16}$ in

- 318 M flavipes** Quel (from the yellow stem, *flavus*, yellow, *pes*, a foot) *a b*

P hemispherical, rose or flesh-colour *St* tough, villous at base *G* adnate, paler than *P*

Odour of radishes Stumps Autumn $\frac{1}{2} \times 2\frac{3}{4} \times \frac{1}{16}$ in

- 319 M atroalba** Gill (*ater*, black, *albus*, white) *a b c*

P broadly campanulate, dark slate-grey marg whitish *St* with a large strigose bulb, apt to split as in 320, grey and white *G* free, white, then glaucous

Woods, amongst moss July-Nov $1\frac{3}{8} \times 3\frac{1}{4} \times \frac{1}{8}$ in Shape and colour of 315, habit different

- 320 M dissiliens** Quel (from the stem splitting when broken, *dissilio*, to burst asunder) *a b*
P campanulato-flat, sulcate, ashy-brown, marg whitish *St* ashy
G rounded-free, white
 Odour insipid, sometimes strong, rancid rather than alkaline Trunks, branches, on the ground amongst grass, frequent July-Nov $1\frac{3}{4} \times 2\frac{1}{4} \times \frac{1}{8}$ in
- 321 M atrocyanea** Gill (from the blackish-indigo pileus, *ater*, black, *cyaneus*, dark blue) *a b c*
P campanulato-conical, umbonate, sulcate *St* slightly attenuate upwards, colour as *P* *G* ascending, attenuato-adenate *Flesh* pale slate
 Solitary or caespitose Odour none Amongst fir leaves, on the ground Sept-Nov $\frac{1}{8} \times 3\frac{3}{8} \times \frac{1}{16}$ in Becoming black when dry
- 322 M pullata** Sacc (*pullus*, dark-coloured) *a*
P campanulate, umbonate, sulcate, dark umber, becoming paler with age *St* slightly attenuate upwards, colour as *P*, base white-floccose *G* adnexed, white
 Odour slightly nitrous Amongst dead leaves Oct-Nov $\frac{1}{4} \times 3\frac{3}{8} \times \frac{1}{16}$ in
- 323 M paupercula** Sacc (from its appearance *pauper*, poor) *a b*
P hemispherical, white or faint tawny *St* attenuato-rooting, white *G* adnexo-free white
 Odour of fresh meal, or sweet Inside decayed stumps, oak uncommon July-Sept $\frac{1}{16} \times \frac{7}{8} \times \frac{1}{12}$ in
- 324 M leptcephala** Gill (from the delicate pileus Gr *leptos*, fine, *kephale*, a head) *a*
P expanded, umbonate sulcate, ashy, mid darker *St* colour as *P* *G* emarginate ashy-white
 Solitary Odour strong of nitre On the ground and on trunks Autumn $\frac{1}{4} \times 2\frac{1}{8} \times \frac{1}{16}$ in
- 325 M alkalina** Quel (from its alkaline odour) *a b c*
P campanulate, umbonate, brown or ashy, mid darker *St* brown or yellow *G* adnato-ascending, white, or ashy with a white edge
 Solitary or caespitose Odour strong disagreeable Stumps, etc, bramble, privet, fir, uncommon Jan-Dec $1\frac{1}{8} \times 5 \times \frac{1}{8}$ in Variable in colour, often exhibiting shades of yellow or pale rose There is a white variety
- 326 M ammoniaca** Quel (from its ammoniacal odour) *a b*
P conico-campanulate, papillate, deep brown to greyish, marg ashy *St* whitish-grey or brownish *G* adnate, whitish or grey
 Solitary Odour strong On the ground, amongst grass Sept-Nov $1 \times 3\frac{5}{8} \times \frac{1}{8}$ in
- 327 M metata** Quel (from the pileus, like a *meta*, the conical column at the end of the Roman Circus) *a b c*
P conico-campanulate, cream-grey, flesh-colour or livid *St* colour as *P* *G* adnato-ascending, whitish
 Gregarious Odour alkaline, strong to weak or none Woods, amongst moss Oct-Nov $\frac{1}{6} \times 3\frac{1}{8} \times \frac{1}{8}$ in

- 328 M plicosa** Gill (from the sulcate pileus, *plico*, to fold) *a b c*
P expanded, umbonate, often split, pale tan, mid sienna, marg greyish *St* colour as *P*, white at base *G* adnate, greyish
 Woods, on the ground, rare Sept–Oct $1\frac{1}{4} \times 1\frac{1}{8} \times \frac{1}{8}$ in
- 329 M peltata** Gill (from the shield-like pileus, *pelta*, a small shield) *a b*
P plane, with a central projecting ring, fuscous-blackish or greyish *St* pale umber *G* sinuate, pale grey
 Woods, commons, etc, amongst moss rare Aug–Oct $1\frac{1}{4} \times 2\frac{3}{4} \times \frac{1}{16}$ in
- 330 M consimilis** Sacc (from its likeness to various other species of the genus) *a*
P campanulate, umbonate, splitting, pale grey, mid umber *St* pale umber *G* adnato-ascending, pale grey
 Odour none Amongst grass Autumn $1\frac{3}{8} \times 2 \times \frac{1}{8}$ in
- 331 M ætites** Quel (from the colour, Gr *ætites*, iron ore) *a b c*
P expanded, umbonate, sulcate, opaque brown-ochre *St* paler than *P* or pale livid-umber *G* adnato-sinuate, veined, white or whitish-grey *Flsh* pale brown-ochre
 Scattered or loosely gregarious Odour bitter or none Woods, amongst moss and grass June–Oct $1\frac{1}{4} \times 1\frac{1}{8} \times \frac{1}{8}$ in
- 332 M stannea** Quel (from the colour, *stannum*, tin) *a b*
P expanded glistening, grey, sometimes umber *St* pale tan *G* adnato-toothed whitish-grey
 Scattered or loosely gregarious Odour none Woods, amongst grass, on the ground Sept–Oct $\frac{3}{4} \times 3\frac{1}{8} \times \frac{1}{16}$ in
- 333 M vitrea** Quel (from its fragility, *vitrum*, glass) *a b*
P campanulate, subumbonate umber mid darker *St* glistening, paler than *P* *G* sinuato-adnate, whitish
 In troops Odour none Woods, fir, moist places, uncommon Sept–Oct $1\frac{1}{8} \times 4\frac{1}{4} \times \frac{1}{8}$ in
- 334 M tenuis** Gill (*tenuis*, thin) *a b c*
P campanulato-convex, white mid pale brown, marg toothed *St* white *G* adnate, whitish
 Woods, shady moist places, often on the root fibres of trees, rare Sept. $\frac{3}{4} \times 5 \times \frac{1}{16}$ in Watery, delicate, fragile, wavering

c Filipedes

- 335 M filopes** Quel (from the thread-like stem, *filum*, a thread, *pes*, a foot) *a b c*
P expanded, pale livid-brown or whitish *St* rooting, pilose at base, white *G* adnexo-free, white or greyish
 Singly or in troops Woods, amongst leaves Aug–Nov $1 \times 6\frac{1}{4} \times \frac{1}{32}$ in

336 M amicta Quel (from the pulverulent pileus and stem, *amicia*, to clothe) *a*

P conico-campanulate, subumbonate, greenish, pale slate or livid *St* rooting, livid *G* adnexo-free, pale grey with lighter edge

Gregarious Odour none Amongst moss and leaves, about roots of *Nardus stricta* Sept $\frac{3}{4} \times 3\frac{1}{2} \times \frac{3}{2}$ in

336a M plumbea Karst (from the colour of the pileus *plumbeus*, leaden)

P membranous, convexo-flattened obtuse, sulcate, sprinkled white-pruinose *St* fragile, ashy-pulverulent, white hyaline above strigose below *G* adnate horizontal, colour as *P*

Odour none Mossy pastures Autumn $\xi \times 4$ in

336b M cinerea Mass & Crossl (from its colour *cinis*, ashes) Wholly grey

P slightly gibbous or obtuse, then expanded marg striate, paler and silky when dry *St* glabrous, base white-downy *G* adnate, subdistant edge paler

Amongst short grass Odour strong of radishes $1 \times 2\frac{3}{4} \times 1\frac{1}{8}$ in Differs from 324 in sulcate *P*, from 327 in white *C* from 336a in absence of odour

337 M debilis Quel (*debilis*, weak) *a c*

P conico-campanulate, subumbonate, livid-whitish or brownish-salmon *St* colour as *P*, fibrillose at rooting base *G* broadly adnate, whitish

Gregarious Woods, chestnut, fir, amongst moss Oct $\frac{3}{4} \times 2\frac{1}{2} \times \frac{3}{2}$ in

338 M vitilis Quel (from the deep striæ of the pileus *vitilis*, plaited) *a b*

P conico-campanulate, sometimes papillate, brownish, becoming whitish *St* shining, livid *G* attenuato-adnate or slightly sinuate, whitish or grey or dark ashy with a white edge

Solitary or gregarious Odour none Woods, mixed amongst leaves, frequent Sept-Nov $\frac{1}{2} \times 4\frac{3}{4} \times \frac{3}{2}$ in

339 M collarata Quel (from the union of the gills in a minute collar at the top of the stem) *a c*

P campanulato-convex, subumbonate, greyish-white, rose-tinged, mid fuscous *St* smooth, whitish-brown *G* adnate, hoary white or faintly salmon

Woods, amongst grass and oak bark Oct-Nov $g \times 2\frac{1}{2} \times \frac{3}{4}$ in

340 M speirea Gill (from the twisted base of the stem, Gr *spira*, a coil) *a*

P plane, umbonate, pallid grey or whitish mid dark fuscous *St* attenuato-rooting, fibrillose and brown below, white above *G* adnate, thin, deeply decurrent, white

In troops during very rainy weather Woods, mixed, mossy trunks, uncommon Aug-Oct $\frac{1}{2} \times 1\frac{1}{2} \times \frac{3}{2}$ in

- 341 M tenella** Quel (*tener*, tender) *a* White or livid flesh-colour
P campanulato-convex, pellucid *G* adnato-decurrent
 Cæs-pitose Decayed trees Autumn $\frac{1}{2} \times \frac{7}{8} \times \frac{3}{2}$ in
- 342 M acicula** Quel (from its resemblance to a small pin, *acicula*)
a b c
P conico-campanulate, papillate, orange-vermilion *St* attenuate
 and fibrilloso-rooting, deep yellow *G* adnate or adnexo-
 rounded, yellow with a whitish edge or wholly white
 Wood, leaves, twigs, etc, frequent July-Oct $\frac{3}{8} \times 1\frac{1}{2} \times \frac{3}{2}$ in

f Lactipides

- 343 M hæmatopus** Quel (from the blood-red juice of the stem,
Gr haïma, blood *pous*, a foot) *a b c*
P conico campanulate, subumbonate, whitish flesh-colour *St*
 pulverulent, colour as *P* *G* adnate, whitish *Milk* deep
 brown-crimson
 Cæs-pitose Taste slightly disagreeable Stumps, old timber, alder, birch,
 frequent Aug-Nov $1\frac{1}{2} \times 3 \times \frac{1}{2}$ in
- 344 M eruenta** Quel (from the blood-like juice *eruer*, gore) *a b*
P conico campanulate, subumbonate, brown *St* tense villous-
 rooting, paler than *P* *G* adnate, whitish *Milk* deep
 brownish-crimson
 Solitary or subcæs-pitose Woods, pine cones, etc rare Sept
 $1 \times 3\frac{1}{2} \times 1\frac{1}{2}$ in
- 345 M sanguinolenta** Quel (from the blood-red juice *sanguino-*
lentus, bloody) *a b c*
P hemispherical, brown or purplish-brown *St* flaccid, fibrillose
 at base, colour as *P* *G* pale purplish brown edge some-
 times dark purple *Milk* brownish-crimson
 Gregarious Woods chips, twigs, fir leaves, moss etc, tree fern stems in
 greenhouses May-Nov $\frac{1}{2} \times 3\frac{1}{2} \times \frac{1}{2}$ in Sometimes wholly pale brown
 and varying $\frac{1}{2}$ to $\frac{1}{2}$ in high
- 346 M crocata** Gill (from the saffron-coloured juice *crocus*, saffron)
a b
P convex, olivaceous, ashy, yellowish or white mid reddish
St tense, deep yellow orange-crimson at fibrinose base *G*
 adnato-ascending or annexed, white
 Scattered Woods, beech amongst leaves, uncommon Autumn
 $\frac{7}{8} \times 4\frac{1}{2} \times 1\frac{1}{2}$ in A small var appears on beech trunks
- 347 M chelidonia** Quel (from the yellow juice, like that of
Chelidonium majus) *a b c*
P hemispherical yellowish flesh-colour mid ochreous *St* firm,
 yellow at the villous-rooting base *G* adnate, white or yellow-
 white *Milk*, saffron to vinous-red
 Subcæs-pitose Odour somewhat alkaline Stumps, beech, alder, rare
 Oct $\frac{5}{8} \times 2\frac{1}{2} \times 1\frac{1}{2}$ in

343. *M galopus* Quel (from the white juice, Gr *gala*, milk, *pous*, a foot) *a b c*

P hemispherical, subumbonate, dark then pale purplish-flesh-colour mid blackish *St* colour as *P*, base villous *G* adnexed or adnate, white or glaucous *Milk* white

In troops Almost tasteless or like radishes Woods, amongst moss and leaves, common July–Nov $\frac{3}{8} \times 2\frac{1}{8} \times \frac{1}{8}$ in Sometimes wholly dark in colour

349 *M leucogala* Sacc (from the milk-white juice Gr *lukos*, white, *gala*, milk)

P campanulate, umbonate, purple-brown *St* lighter than *P* white tomentose at base *G* adnate with a tooth, ashy

Cespitose Amongst grass, rotten stumps Oct $\frac{1}{2} \times 3 \times \frac{1}{16}$ in

g Glutimpedes

350 *M epipterygia* Quel (from its frequent growth on brake-fern, *Plaris aquilina*) *a b c*

P conical with a separable viscid pellicle, dark olivaceous then pale livid-sulphur *St* greenish-sulphur *G* sinuato-ascending, whitish or greyish *Flesh* pale sulphur

Solitary, gregarious or cespitose Odour none Woods amongst grass, leaves, dead bracken, on manure heaps, common Aug–Dec $\frac{3}{4} \times 5\frac{1}{2} \times \frac{1}{16}$ in There is a white var

351 *M clavicularis* Gill (from its shape, *clavus*, a nail) *a b*

P expanded, subumbonate, dry, pelliculose, white or light yellowish *St* tough, slightly viscid, whitish *G* adnato-decurrent, whitish

Woods, fir, grassy places Oct $\frac{3}{4} \times 2\frac{1}{2} \times \frac{1}{16}$ in

352 *M pelliculosa* Quel (from the thin separable pellicle of the pileus) *a b c*

P at first umbonate then plane, viscid, brownish, mid darker *St* rigid, livid grey-whitish *G* adnato-decurrent, thick, white

In troops during very rainy weather Taste none Heaths, heathy woods, frequent Sept–Dec $\frac{1}{2} \times 2\frac{1}{2} \times \frac{1}{16}$ in

353 *M vulgaris* Quel (*vulgaris*, common) *a b c*

P convex, depressed, papillate, subviscid, brownish or ashy-grey *St* attenuate and slightly strigose below, ashy-grey *G* adnato-decurrent, white

Gregarious Odour strong of new meal, or none Woods, fir, amongst moss, on dead twigs, larch and pine leaves, common July–Nov $\frac{1}{2} \times 1\frac{1}{4} \times \frac{3}{16}$ in

354 *M citrinella* Quel (from its colour, *citrus*, lemon) *a b c*

P hemispherical, subviscid *St* pale brown villous at base *G* adnato-ascending, at first white

Gregarious Woods pine, rotten trunks, uncommon Oct $\frac{1}{16} \times \frac{1}{8} \times \frac{1}{16}$ in The var *candida* Gill is at first white, sulphur in drying

355 M plicatoerenata Gill (from the folded and margin-notched pileus, *plica*, a fold, *crena*, a notch) *a*

P conic, subumbonate, white then light yellow *St* pale pallid-reddish *G* adnato-ascending, white

Amongst heath and moss, under larches Oct $\frac{3}{8} \times 1\frac{3}{4} \times \frac{1}{2}$ in

356 M rorida Quel (from the dripping jelly of the stem, *roridus*, dewy) *a b c*

P convex, whitish-ochre, pale buff, faintly ashy or white

St white *G* arcuato-decurrent, white

Taste none, odour somewhat rink, strong Dead sticks, twigs, bramble, rare June-Sept $\frac{1}{2} \times 1\frac{1}{2} \times \frac{3}{4}$ in

h Basipedes

357 M stylobates Quel (from the shape of the stem, Gr *stulos*, a pillar, *basis*, a base) *a b c* White or faint grey

P campanulate, sprinkled with minute hairs *St* pruinose above *G* free

Dead grass, leaves, rushes, fern stems, twigs, bark, chips, in wet places, uncommon June-Oct $\frac{3}{8} \times 2\frac{1}{4} \times \frac{5}{8}$ in In infancy the edge of the pileus is attached to the edge of the basal disc and forms a veil

358 M tenerrima Quel (*tenerrimus*, very tender) *a b c* White

P hemispherical, pruinose *St* pubescent below *G* free

Gregarious Mossy bark of trees, willow, dead bramble, fir cones, dead wood, sticks, chips, etc, uncommon Aug-Mar $\frac{1}{6} \times \frac{3}{8} \times \frac{1}{4}$ in Edge of pileus and disc as in 357

359 M discopus Gill (from the basal disc of the stem, Gr *diskos*, a disc, *pous*, a foot) *a b* White

P conical, subumbonate, pulverulent *G* adnate

Twigs, acorns, dead wood, etc, in moist places Autumr $\frac{1}{16} \times \frac{3}{8} \times \frac{1}{8}$ in

360 M saccharifera Gill (from its sugary appearance under a lens, *saccharon*, sugar, *fero*, to bear) *a b c* Whitish

P hemispherical, covered with minute subglobose granules *G* subdecurrent

Dead bramble, rose hurze nettle Nov-Mar $\frac{1}{16} \times \frac{3}{16} \times \frac{1}{4}$ in In var *elictica* Mass the *P* is sulcate and *G* adnate

361 M pterigena Quel (from its habitat *pterus*, a fern, *gigno*, to bear) *a b c*

P hemispherico-oblong, pale rose with orange marg *St* paler than *P* *G* adnate, pallid with bright orange edge

Gregarious, sometimes fasciculate Dead *Estraea*, veins of dead leaves, etc, uncommon Sept-Nov $\frac{3}{16} \times 1\frac{1}{4} \times \frac{3}{2}$ in

i Insititiae

362 M corticola Quel (from its habitat, *cortex*, bark, *colo*, to inhabit) *a b c*

P hemispherical, depressed, brownish, varying grey *St* slightly furfuraceous, paler than *P* *G* sinuate, colour as *St*

Amongst moss, on living ash, bramble, oak, willow, apple, pear, common. June-Jan $\frac{1}{16} \times 1\frac{1}{4} \times \frac{1}{2}$ in

- 363** *M hiemalis* Quel (from its time of growth, *hiems*, winter) *a c*
Whitish or flesh-colour, rarely brownish or slate
P hemispherical *St* slightly downy below *G* adnato-ascending, narrow
Scattered Trunks, oak, willow, rare Sept–Nov $\frac{5}{8} \times 1\frac{1}{8} \times \frac{1}{16}$ in
- 364** *M setosa* Gill (from the hairy stem *seta*, a bristle) *a b* White, becoming brownish
P hemispherical *G* adnate
Densely gregarious Dead beech leaves rare Oct–Nov $\frac{1}{16} \times \frac{3}{4} \times 1\frac{1}{8}$ in
- 365** *M capillaris* Quel (from the hair-like stem *capillus*, a hair)
a b c White
P plane, slightly depressed *St* smooth, attenuate downwards
G adnato-decurrent
Woods, on herbaceous stems, moss and dead leaves chiefly beech, oak
Sept–Nov $\frac{1}{16} \times \frac{3}{4} \times 1\frac{1}{8}$ in Chiefly seen in very rainy weather
- 366** *M juncicola* Gill (from its habitat *juncus*, a rush, *colo*, to inhabit) *a*
P acutely conic, rose-colour rufescent, blood red or tawny *St* brownish *G* adnate, white or pale yellowish
Rushes in bogs, twigs, rare June–July $\frac{1}{16} \times 8 \times 1\frac{1}{8}$ in

Λ *OMPHALIA* Quel

(From the umbilicus Gr *omphalos*)

Vol almost obsolete, only seen in pruinæ squamules or tomentum of the pileus and stem, and rarely in a basal disc to which the edge

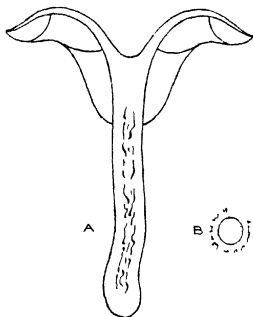


Fig 19—A section of *Omphalia muralis* Quel $\times 3$ B *O pseudodirecta* W C Sm
young state seen from above to show volva like base

of the pileus is attached in infancy *Hymenophore* confluent with, but heterogeneous from the cartilaginous stem *Picus* somewhat

membranous, umbilico-infundibuliform, hygrophanous *Stem* simple, central, cartilaginous, fistulose or stuffed, more or less lustrous, sometimes hair-like *Gills* decurrent *Spores* more or less elliptical, smooth (Fig 19)

Many of the species are small, beautiful and generally epiphytal. Odour obsolete or nearly so. Mostly peculiar to hilly positions, preferring damp, woody situations and rainy seasons.

The species must not be confounded with the thick-gilled species of similar structure found amongst the *Cantharilli*.

Species 367—406

COLLYBIARIE (from the resemblance to *Collybia*) *Pileus* with a deflexed margin

a Hydrogramme Comparatively large *Gills* narrow, very crowded arcuate, from the first truly decurrent 367—370

b Pyxidata Intermediate in size *Gills* narrow, slightly distant, attenuate at both ends 371—382

c Umbelliferæ *Gills* broad, commonly thick, very distant. Must not be confounded with *Xerotus* 383—392

MYCENARIE (from the resemblance to *Mycena*) *Pileus* at first complicate, margin straight, pressed to the stem

d Campanellæ *Gills* broad, perfect, unequal 393—403

e Integrellæ *Gills* fold-like, narrow 404—406

COLLYBIARIÆ

a Hydrogramme

367 *O hydrogramma* Quel (from its watery streakings, Gr *hudor*, water, *gramme*, a line) *a b*

P subconvex, striate broadly umbilicate, tan *St* subattenuate and villous below, tan *G* livid whitish or tan

Somewhat caespitose. In woods amongst dead leaves, beech. Oct. $2\frac{1}{2} \times 3\frac{1}{2} \times \frac{1}{4}$ in. Resembles 172 in appearance.

367a *O detrusa* Gill (from the umbilicus—as if pushed in *detrudo*, to push down) *a b*

P somewhat fleshy, convex, expanded, at length umbilicate, even, glabrous, indistinctly zoned, dark grey or whitish-umber. *St* stuffed to hollow, glabrous, dark grey or dull lavender. *G* subdecurrent with a tooth, thin, crowded, whitish or somewhat pale ochreous.

Woods, amongst moss. Autumn. $1\frac{1}{3} \times 2\frac{1}{2} \times \frac{1}{8}$ in.

368 *O umbilicata* Gill (from the umbilicate pileus) *a*

P plane, deeply umbilicate, tan to fuscous. *St* silky striate above, villous below, whitish-buff. *G* whitish.

Somewhat caespitose. Woods, chiefly pine, amongst moss. Autumn. $1\frac{1}{3} \times 1\frac{1}{2} \times \frac{1}{7}$ in.

369 O maura Gill (from its swarthy appearance, *maurus*, a Moor)
a b

P plane, striate, deeply umbilicate, sooty-brown *St* sometimes rooting, livid to dark brown *G* white

Odour of new meal Lawns and moist places Oct–Nov $1\frac{3}{4} \times 1\frac{1}{2} \times \frac{1}{8}$ in
Must not be confounded with 277

370 O offuciata Gill (from its appearance, *offucia*, paint) *a b*

P deeply depressed, rarely plane, with a small papilla, tan to brownish or flesh-colour *St* colour as *P*, brown within at base *G* colour as *P*

Solitary or slightly fasciculate Under beeches Oct–Nov $1\frac{3}{4} \times 1\frac{3}{4} \times \frac{1}{8}$ in
The salmon colour of the gills must not cause this to be confounded with Series II *Hyporhodu*

b Pyxidate

371 O chrysophylla Gill (from the golden-yellow gills, Gr *chrysos*, gold, *phyllon*, a leaf) *a b*

P plane, broadly umbilicate, ochreous-rufescent, tan or grey-hoary when dry *St* colour as *G*

Gregarious Decayed pine, stumps, chips, sawdust Aug–Oct $2\frac{1}{4} \times 2 \times \frac{3}{16}$ in
The colour of gills and stem must not cause this to be confounded with *Flammula*

372 O Postii Karst (after H von Post) *a b*

P plane, broadly umbilicate, striate, bright orange or rufescent *St* light yellow to whitish *G* whitish to grey-white

Charcoal beds, swampy places July–Oct $2\frac{1}{2} \times 2\frac{1}{4} \times \frac{1}{8}$ in The var *aurea*
Mass bright golden yellow, amongst *Sphagnum* in swamps

373 O pyxidata Quel (from the shape of the pileus *pyxis*, a small box) *a b c*

P infundibuliform, striate, rufous-fuscescent to umber or pallid *St* colour as *P* *G* white to brown *Flsh* pale brown

Lawns and woods amongst grass and moss, frequent July–Nov
 $1\frac{1}{2} \times 1\frac{3}{4} \times \frac{1}{8}$ in Sometimes $\frac{1}{2} \times \frac{1}{4}$ in

374 O leucophylla Gill (from the white gills, Gr *leukos*, white, *phyllon*, a leaf) *a b c*

P plane, broadly depressed, at length subrimose, dark ashy to pale or dark umber *St* colour as *P*, usually white at top and bottom

Taste insipid, odour somewhat strong Woods, moist places, amongst short grass April–Sept $1\frac{3}{8} \times 1\frac{1}{4} \times \frac{1}{8}$ in

375 O striæpileus Gill (from the striate pileus) *a b c*

P plane, depressed, rarely with a small papilla, livid olivaceous or brownish, mid brown *St* pale livid umber, becoming fuscous *G* whitish

Woods, amongst moss and grass Oct–Nov $1\frac{3}{8} \times 1\frac{1}{2} \times \frac{1}{8}$ in

- 376 O telmatiaea** Sacc (from its habitat, Gr *telmatiaios*, occurring in marshy places) *a b*

P infundibuliform, minutely virgate, dark brown or fuscous to livid *St* slate or tan flesh-colour *G* livid or pale brown

On *Sphagnum* Aug $2\frac{3}{8} \times 1\frac{1}{2} \times \frac{1}{4}$ in (*Agaricus affricatus* B & Br, not *l r*)

- 376a O epichysium** Quel (from a fancied resemblance to an ancient Greek wine-vessel, *epichustus*)

P membranous, plane, umbilicate, livid umber, pale livid-reddish-umber, or mid slate-lavender and marg dull salmon, silky floccoso-squamose and pallid when dry, marg striate when moist *St* somewhat hollow, glabrous, ashy, grey or slate, dull salmon above and below *G* plano-decurrent, ashy or salmon-brown-white

On wet rotten wood, rarely in bogs Autumn $1\frac{1}{8} \times 1\frac{1}{4} \times \frac{1}{16}$ in
Wholly soft and watery

- 377 O sphagnicola** Karst (from its habitat, *sphagnum*, bog-moss, *colo*, to inhabit) *a b c*

P infundibuliform, substrate, brownish-tan or dull pale ochreous *St* tan-white or ashy *G* thick, colour as *P* or whitish

In swamps, on *Sphagnum acutifolium*, uncommon June-Sept $1\frac{1}{4} \times 1\frac{3}{8} \times \frac{1}{8}$ in

- 378 O philonotis** Quel (Gr *philos*, loving, *notis*, moisture) *a*
Smoky-ashy or brown-white

P infundibuliform, fragile *St* floccose at base

(On *Sphagnum*, swampy places in fir woods Aug $1\frac{1}{4} \times 2\frac{3}{8} \times \frac{1}{8}$ in Fries says this is one of the vernal species, with 377 and 380)

- 379 O onisea** Gill (from its colour, like a codfish, Gr *oniskos*) *a b c*
Dark ashy to pale umber, becoming grey-hoary

P broadly umbilicate, striate *G* shortly decurrent

Not cæspitose Woods, swampy places, rare Dec $1\frac{1}{8} \times \frac{7}{8} \times \frac{1}{8}$ in

- 379a O Luffii** Mass (after Mr John Luff)

P convex, undulate, then depressed, even, glabrous, marg usually upturned at extreme edge, pallid, white when dry *St* solid, thickened above, cartilaginous, often crooked, glabrous, polished, pallid *G* decurrent, crowded, colour as *St* *Flesh* very thin, white

Gregarious Odour fragrant, spicy, like 219 $1\frac{1}{4} \times \frac{1}{2} \times \frac{1}{12}$ in Allied to 379

- 380 O cæspitosa** Sacc (from its cæspitose habit) *a b c*

P hygrophanous, plano-depressed, livid buff, yellowish-white or olive-shaded, at length white, marg crenate, sulcate *St* slightly enlarged below, colour as *P* *G* very distant, sometimes branched, whitish or yellowish-buff

Moors, by boggy water courses under pines, damp peaty soil May-Oct $1\frac{1}{4} \times 1 \times \frac{1}{8}$ in Whole plant sometimes becomes bright yellow in drying

- 381 O glaucophylla** Gill (from the olive-grey gills, Gr *glaukos*, the bluish-grey of the olive, *phyllon*, a leaf) *a c*

P plano-umbilicate, mouse-colour marg striate *St* colour as *P*

Woods, mossy places Sept $\frac{1}{2} \times \frac{5}{8} \times \frac{1}{16}$ in Pileus sometimes $\frac{7}{8}$ in in diameter

- 382 O rustica** Quel (from its habitat *rustica* the country) *a b*

P plano-umbilicate, fuscous to grey, or whitish-umber, shaded lavender, marg striate *St* colour as *P*, or dull rather pale lavender *G* thick, olivaceous or olive-grey

Woods, grassy avenues, heathy ground, charcoal heaps Aug-Sept $\frac{1}{2} \times \frac{1}{2} \times \frac{1}{16}$ in

- 382a O alutacea** Sacc (from its colour, *aluta*, tanned leather) *a b*
Tan colour, or dull pale ochreous

P membranous, convex, then umbilicate, smooth, marg incurved, even *St* hollow, smooth, paler than *P* *G* somewhat narrow, crowded, arcuate, colour as *St*

Amongst grass and moss Sept $\frac{3}{4} \times 1\frac{3}{4} \times \frac{1}{16}$ in

c Umbellifera

- 383 O demissa** Karst (*demissus* drooping) *a b*

P infundibuliform, fuscous-rufescent to tan brown *St* liver-rufescent to pale tan-brown *G* becoming purple

Waste places, banks in woods, burnt wood, rare Aug-Oct $\frac{5}{8} \times \frac{1}{2} \times \frac{1}{16}$ in
Agaricus rufulus L. & B. Not unlike some forms of 224

- 384 O hepatica** Gill (from its colour Gr *hepar*, the liver) *a b c*

P infundibuliform, tough, rufous flesh-colour to tawny and tan *St* fuscous flesh-colour *G* whitish

Lawns, mossy pathsides in woods, etc, rare Nov-Dec $1\frac{1}{2} \times 1\frac{3}{8} \times \frac{1}{8}$ in
Often in company with 373

- 385 O muralis** Quel (from one of its habitats *murus*, a wall) *a b c*

P infundibuliform, rufous-brown to tan-umber marg striate *St* paler than *P* *G* brownish-white

Old mossy walls, amongst moss in woods, on turf walls, sandy banks, etc Jan-Nov $1 \times \frac{5}{8} \times \frac{1}{8}$ in Sometimes only $\frac{1}{2} \times \frac{1}{2}$ in There is a white var Several other species of *Omphalia* occur on old mossy walls

- 386 O umbellifera** Quel (from the umbrella-like pileus, *umbella*, an umbel or umbrella, *fero*, to bear) *a b c*

P plano-depressed, deep brown to ochreous-whitish marg striate *St* slightly attenuate downwards, colour as *P* *G* grey-whitish, umber or dusky flesh-colour, edge whitish

Taste none, odour at first somewhat disagreeable, evanescent Boggy ground, stumps, rotten wood, old walls, heathy banks, etc Mar-Dec $\frac{5}{8} \times \frac{5}{8} \times \frac{1}{16}$ in Var *abiegnæ* Mass grows on firwood Var *viridis* Sacc is verdigris green There is also a wholly deep yellow variety

386a O velutina Quel (*velutinus*, velvety) *a*

P convex, umbilicate, striate, greyish or yellowish-grey *St* solid, colour as *P*, white at base *G* arcuate, wide, distant, colour as *P* *Flesh* dark grey

In heaths Sept $\frac{1}{2} \times 1\frac{1}{2} \times \frac{1}{2}$ in Has characters between 386 and 391

387 O infumata Sacc (from its colour *infumo*, to smoke) *a b*

P obtuse, at first green *St* dilated at base, tomentose, yellow *G* yellow

Moss on bark Autumn $\frac{5}{8} \times 1\frac{3}{8} \times \frac{1}{2}$ in Colours of 350

388 O retosta Gill (from its appearance, *retostus*, scorched) *a c*

Umber within and without

P plano-depressed *St* equal or attenuate below *G* somewhat darker than flesh

Lawns, etc, amongst dead leaves Oct $1\frac{1}{2} \times 1 \times \frac{1}{2}$ in Firmer than 386

389 O abhorrens Sacc (from its fetid odour) *a*

P plano-depressed, fuscous to warm ochreous *St* brown-ochre above, dark brown below *G* colour as *P*

Cæspitose Odour dung like On lawns, under yew Oct $\frac{1}{2} \times \frac{3}{4} \times \frac{1}{2}$ in A close ally of 388, much like 1411

390 O pseudoandrosacea Gill (from its resemblance to 1420

Marasmius androsaceus Fr, (Gr *pseudos*, false) *a c* White, whitish-grey, or umber-white

P plano-depressed, marg striato-plicate, crenulate

Mossy lawns Oct-Nov $\frac{1}{2} \times 1\frac{1}{4} \times \frac{1}{4}$ in

391 O griseopallida Quel (from its colour, *griseus*, grey, *pallidus*, pallid) *a b c*

P infundibuliform, squamulose, fuscous grey or pale greyish-umber, marg sometimes slightly striate *St* paler than *P* *G* fuscous- or slate-grey

On the ground, gardens Sept-Oct $\frac{1}{2} \times \frac{1}{2} \times \frac{1}{2}$ in

392 O stellata Quel (from the star-like, radiate base) *a b c* White

P plano-depressed, diaphanous-striate

In woods, on sticks, decayed stems of herbaceous plants, wood, uncommon Feb-Nov $\frac{1}{4} \times 1 \times \frac{1}{4}$ in Must not be confounded with the *hasipedes* section of *Mycena*

MYCENARIÆ

d Campanellæ

393 O campanella Quel (from the shape of the pileus, *campanella*, a little bell) *a b c*

P campanulato-plane, umbilicate, yellow-ferruginous, orange or brown *St* brown, usually dark strigose at base *G* dull ochre

Cæspitose Woods, pine, trunks Aug-Nov $\frac{1}{2} \times 1\frac{1}{2} \times \frac{1}{8}$ in Sometimes completely covering stumps There is a var with a small acute papilla in the umbilicus

- 394. *O. picta*** Gill (from its varied colours, *pictus*, painted) *a*
P hood-shaped, subdepressed, fuscous, marg striate, mid yellow or brown *St* horny, brown, blackish at strigose base *G* adnate, broader than long, subdecurrent, whitish or yellowish
 Woods, mixed, on sticks, chips, dead wood, sawdust, etc Aug-Oct $\frac{3}{8} \times 1\frac{1}{4} \times \frac{1}{8}$ in
- 395. *O. camptophylla*** Sacc (from the curved gills, *G* *lampto*, to curve, *phyllon*, a leaf) *a b*
P convexo-depressed, brown or brown-white marg striate, grey *St* yellow to white above, rufescent to pale brown below *G* adnate, subdecurrent, white
 Sticks, chips, etc, rare Aug-Oct $\frac{1}{2} \times 2 \times \frac{1}{2}$ in
- 396. *O. umbratilis*** Gill (from its growing in the shade *umbratilis*, remaining in shade) *a c*
P convexo-plan, broadly depressed black-fuscous, hoary when dry *St* fuscous-dead-black *G* adnato-decurrent, becoming fuscous-white
 Gregarious Amongst grass Autumn $\frac{3}{8} \times \frac{7}{8} \times \frac{1}{8}$ in
- 397. *O. grisea*** Quel (*griseus*, grey) *a b c*
P conico-campulanate, subumbonate, then expanded and umbilicate, livid grey to umber, becoming hoary *St* attenuate downwards, longitudinally cracking, ashy whitish *G* sinuato-decurrent, whitish-grey, dull lavender with a white edge or livid umber
 Taste and odour somewhat unpleasant Woods, pine, mixed, dead sticks, leaves, rare Sept-Nov $\frac{1}{2} \times 1\frac{1}{4} \times \frac{1}{4}$ in
- 398. *O. fibula*** Quel (from its shape *fibula*, a pin) *a b c*
P plano-depressed sometimes papillate, orange yellow or vermillion *St* colour as *P* *G* decurrent, yellow or orange *Flesh* orange
 Mossy ground, shady banks, moist woods, moss, sedge grass, stumps, etc Mar-Dec $\frac{1}{2} \times 1\frac{1}{4} \times \frac{1}{4}$ in Var *Stewartii* Kaist *I* tan or white purple, mid deep purple brown The variation from orange to purple agrees with 224 and its purple tinge There is a white variety
- 399. *O. directa*** Sacc (from the long hairs at right angles to the stem, *directus*, straight) *a c* White
P plano-depressed *St* sometimes faintly rufous *G* subdistant, decurrent
 Dead leaves May-Nov $1\frac{1}{2} \times \frac{1}{4} \times 1\frac{1}{8}$ in
- 400. *O. pseudodirecta*** W & Sm (from its being mistaken by Dr M C Cooke for 399, (*gr* *pseudos*, false) *a b*
P plano-depressed, white-pruinose *St* white, merely granular below, springing from a white floccose disc or volva which becomes obsolete as the stem lengthens *G* few, adnate, white then saffron, pruinose-sparkling
 On *Encephalartos* cone at Messrs Vetch's nursery, Chelsea May $\frac{1}{8} \times \frac{1}{2} \times 1\frac{1}{8}$ in Stems bristle like, often non pileate

- 401 O Belliæ** Karst (after the Misses Bell of Coldstream) *a b*
P infundibuliform, pale livid brown, marg waved and furrowed
St whitish above, pale brown below, springing from a slightly
 enlarged, floccose base *G* wrinkled, veined, white
 Dead reeds Oct $\frac{1}{2} \times 1\frac{3}{4} \times \frac{1}{16}$ in
- 401a O gracilis** Quel (*gracilis*, slender) *a* Wholly white
P membranous, campanulate, papillate, striate, smooth, trans-
 parent *St* filiform, fistulose, transparent, pruinose, fibrillose
 at base *G* distant, very decurrent, thin
 Dead grass Oct $\frac{1}{2} \times 1\frac{1}{2} \times \frac{1}{36}$ in
- 402 O gracillima** Quel (*gracillimus*, very slender) *a b* White
P convex, subumbonate then plane and umbilicate *St* springing
 from a floccose base *G* fold-like, disappearing short of
 marg of *P*
 Scattered Dead sticks, herbaceous stems Aug $\frac{5}{16} \times 1 \times \frac{1}{32}$ in
- 403 O bullula** Sacc (from its watery appearance, *bullula*, a watery
 vesicle) *a* White
P hemispherical, diaphanous
 Scattered Dead sticks, twigs Autumn $\frac{1}{2} \times \frac{5}{8} \times \frac{1}{32}$ in

c Integrella

- 404 O integrella** Quel (from its perfect structure *integer*, whole)
a b c White
P hemispherical, depressed or plane *St* pilose downwards to
 a minute villous disc at base *G* adnate decurrent disappearing
 short of marg of *P*
 Commonly fasciculate Shady places, woods on decayed sticks, rotten wood,
 grass, twigs, etc Max-Oct $\frac{1}{16} \times \frac{5}{8} \times \frac{1}{32}$ in
- 405 O buccinalis** Sacc (from its trumpet-shaped pileus, *buccina*,
 a trumpet) *a* White
P fleshy, plano-depressed *St* with a stellate disc at base *G*
 vein-like as in *Cantharellus*
 Twigs, stems, etc, common $\frac{1}{2} \times \frac{5}{8} \times \frac{1}{32}$ in Sometimes branching as in
 1437 on a small scale
- 406 O NEVILLEÆ** Sacc (after Lady Dorothy Neville) *a*
P hemispherico-depressed, granulate, striate, brown becoming
 pale at marg *St* very thin, brown, rough with black gr,
 villous, subdiluted at base *G* veined at sides and interstices
 On *Sphagnum* in orchid pot $\frac{1}{2} \times 1 \times \frac{1}{16}$ in

XI PLEUROTUS Quel

(From a fancied resemblance in many of the species to an
 ear, Gr *phuron*, a side, *ous*, an ear)

Veil universal, seen in the squamules, scurf and appendiculate
 margin of the pileus and in the fugitive annulus, sometimes developed

as gluten, or obsolete or nearly so *Hymenophore* confluent and homogeneous with the fleshy stem, when present *Pileus* usually excentric, compact, spongy to fleshy or membranous, sometimes resupinate *Stem* usually excentric, lateral, annulate, simple or

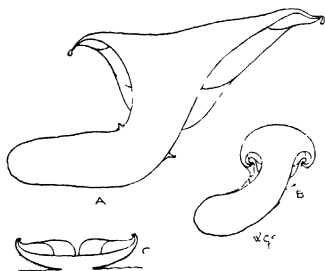


Fig 20—A section of *Pleurotus eryngii* Quel One third natural size B young sterile section showing veil C section of *P. applanatus* Quel X 2

none when present without cartilaginous bark when the larger-stemmed species grow vertically on prostrate trunks, the stem is sometimes central or nearly so *Gills* sinuate, adnate or decurrent, in some of the *Resupinate* often starting from an excentric point. *Spores* more or less elliptical, smooth (Fig 20)

The majority of the species grow on trunks, branches, twigs, moss, etc, a few are terrestrial, many are large, handsome and polymorphic some are small and resupinate They generally appear late in the year, 421 and 422 commonly grow in the spring and reappear year after year on the same habitat All are harmless, and a few are considered by some to be edible All become putrid when old, and none are leathery or woody—in this they differ from members of *Lentinus*, *Panus*, *Xerotus*, *Troga*, *Schizophyllum* and *Lenzites*

Species 407 - 448

- a Excentricæ* *Pileus* laterally extended *stem* excentric
Vel forming an annulus to the stem and hanging as a ragged fringe at the margin of the pileus 407—409
Vel obsolete *Gills* sinuate or obtusely adnate 410—417
Vel obsolete *Stem* distinct, somewhat vertical *Gills* deeply decurrent 418—420
Vel obsolete *Pileus* lateral, sessile or extended behind into a short, oblique, stem-like base *Gills* deeply decurrent 421—425
- b Dimidiatæ* *Pileus* definitely lateral, immarginate behind, not at first resupinate 426—435

c Resupinate *Pileus* at length reflexed, sessile *Gills* starting from an excentric point

Pileus fleshy, uniform 436, 437

Pileus fleshy, striate, with an upper gelatinous stratum or viscid pellicle 438—444

Pileus membranous, not viscid 445—448

a Excentricæ

407 **P corticatus** Quel (from the thick covering of the pileus and stem *cortex*, bark) *a b c*

P fleshy, floccose, pale buff and grey *St* squamuloso-fibrillose white to pale buff *A* silky-floccose *G* decurrent, anastomosing near *St*, yellowish when old *Flesh* white or faintly yellowish

Solitary or caespitose Tasteless, odour pleasant, rather strong Trunks, elm, ash, apple, etc Sept—Oct $9 \times 3\frac{1}{2} \times 1\frac{3}{8}$ in

408 **P dryinus** Quel (from its frequent habitat, *Gr drux*, oak) *a b c*

P fleshy, plane, whitish with fuscous sc, mid darker *St* white or yellowish-white, fuscous at base *A* floccose *G* decurrent, white, yellowish when old

Taste pleasant, mushroom like Trunks, oak, elm, apple, willow, walnut, ash, poplar Sept—Feb $6 \times 4 \times 1\frac{1}{2}$ in

409 **P spongiosus** Sacc (from its spongy substance) *a b c*

P pulvinate, subumbonate, downy, white, tan or ash *St* white-tomentose, sometimes almost obsolete *A* evanescent *G* decurrent, anastomosing on stem, whitish

Stumps, beech, apple poplar, hornbeam, rare Oct—Nov $3\frac{1}{2} \times 1\frac{1}{2} \times \frac{5}{8}$ in Soft and spongy shrinking to almost half its original size in drying

410 **P ulmarius** Quel (from its usual habitat *ulmus*, elm) *a b c*
Whitish

P pulvinate, broadly umbonate, smooth *St* villous at base, rarely central *G* adnate

Solitary or caespitose Said to be edible Odour mealy or slightly acid Trunks, elm, wych elm, beech, oak, poplar, willow sometimes parasitic on 1587 Sept—Dec $6\frac{1}{2} \times 4 \times 1\frac{1}{4}$ in Sometimes proliferous, with many small growths at base of stem

411 **P tessulatus** Gill (from the tessellated markings of the pileus) *a*

P convex, subumbonate, pale tawny, brown-tessellated *St* smooth, white *G* sinuate, white or faintly brownish

Solitary or caespitose Odour of raw meat Trunks $4\frac{1}{2} \times 2 \times \frac{3}{8}$ in

412 **P subpalmatus** Gill (from a fancied resemblance to the shape of the hand) *a b c*

P convex, with a thick, gelatinous, reticulato-corrugate pellicle, rufescent-salmon *St* whitish above salmon below *G* sinuate with a decurrent tooth or adnate-rounded, sometimes adnate with a collar, paler than *P* *Flesh* salmon-streaky

Taste bitter aromatic Squared timber, trunks, etc, willow, elm, oak, rare Sept—Nov $4\frac{1}{2} \times 2\frac{1}{2} \times \frac{1}{2}$ in

- 413 P eraspedius** Gill (from the thick stem, *crassus*, thick, *pes*, a foot) *a b*

P pulvinate or subumbonate, pale buff, marg crenato-lobed *St* and *Flesh* white *G* rounded or adnate

Cespitose Strong odour of cucumber Trunks, rotten wood, poplar
Sept - Oct $4\frac{3}{8} \times 2 \times 1\frac{3}{8}$ in

- 414 P fimbriatus** Gill (from the fringed margin of pileus, *fimbria*, fringe) *a*

P infundibuliform, hygrophanous, whitish, marg lobed and reflexed *St* central or lateral, somewhat attenuate downwards, whitish *G* adnato-ascending, narrow, thin, crowded, white *Flesh* remarkably thin

Gregarious, somewhat cespitose Trunks, dead, rare Aug - Jan
 $4\frac{3}{8} \times 1\frac{3}{8} \times \frac{1}{4}$ in Habit not unlike *Lentinus*

- 415 P Ruthæ** Sacc (after Ruth Berkeley) *a*

P plano-depressed, fan-shaped, tan-whitish marg striate *St* lateral or excentric, salmon-reddish *G* adnato-decurrent, veined, paler than *St*

Sawdust Oct $2\frac{3}{8} \times \frac{3}{8} \times \frac{1}{4}$ in Sometimes twisted and contorted like 1158, for the white variety of which with similar habitat it might be readily mistaken

- 416 P lignatilis** Gill (from its habitat and hardness, *lignum*, wood) *a b c* Whitish-tan

P convexo-plane, slightly depressed, flocculoso-pruinatæ, mid pale buff *St* stuffed woody, pruinato-villous *G* adnate or sinuate *Flesh* whitish, faintly sienna at base of stem

Cespitose or single Odour strong of meal Beech, growing on 1532 and 1593 $3 \times 2\frac{1}{2} \times \frac{1}{2}$ in A variety has *P* ash-y with mid black and marg white

- 417 P circinatus** Gill (from the orbicular pileus, *circino*, to make round) *a b c* White

P plane, silky-lustrous *St* smooth, attenuate downwards *G* subdecurrent

Odour weak and pleasant, not mealy Rotting stumps, birch Sept - Oct
 $2\frac{3}{8} \times 1\frac{1}{2} \times \frac{1}{16}$ in

- 418 P sapidus** Sacc (from its taste *sapidus*, savoury) *a b c*

P plano-depressed, fleshy, smooth, white, pale ochreous, brown or lavender shaded *St* connato-branched, smooth, white *G* subdistant, reticulate on stem, white *Spores* pale lilac

Cespitose Trunks, elm July - Aug $4\frac{1}{2} \times 2\frac{1}{4} \times \frac{5}{8}$ in

- 419 P pantoleucus** Gill (from its colour, Gr *pas*, all, *leukos*, white) *a b c*

P convex, dimidiate, spathulate, smooth *St* excentric *G* broad

Solitary Trunks, branches, willow Oct $4\frac{1}{2} \times 2\frac{1}{4} \times \frac{5}{8}$ in Sometimes small with a depressed pileus

- 420 **P mutilus** Gill (from its being changeable in form, *mutilus*, maimed) *a c* White

P excentric, lateral, reniform or spatulate, depressed, silky-smooth *St* excentric or lateral with a villous base

Dead wood, rotting elm, fir plantations, on a grassy hillside Aug-Dec $1\frac{1}{2} \times \frac{3}{4} \times \frac{1}{2}$ in Might be mistaken for a small *Clitocybe* Sometimes appears on mushroom beds

- 421 **P ostreatus** Quel (from the shape and colour of the pileus, *ostrea*, an oyster) *a b c*

P convexo-depressed, subexcentric, slate or brownish, when young sometimes almost black *St* connato-branched, excentric, rarely central, sometimes obsolete, white *G* reticulate below, whitish

Cespitose imbricate Said to be edible Odour strong Trunks and logs, elm, poplar, walnut, beech, laburnum apple, *Wistaria* once on dry cerebral matter in skull of a stranded whale Jan-Dec $4\frac{1}{2} \times 2 \times \frac{3}{4}$ in
Var columbinus Quel has a purplish pileus and bluish or greenish marg
Var glandulosus Mass has tear like drops on the gills

- 422 **P euosmus** Sacc (Gr *euosmus*, sweet-smelling) *a b c*

P convexo-depressed, tan to olivaceous-brown *St* varying long, short or obsolete *G* reticulate below *Spores* tan, lilac or salmon-shaded

Cespitose imbricate Said to be poisonous Odour of tarragon Stumps, logs, poplar elm April-Oct $5\frac{1}{2} \times 3\frac{1}{4} \times 1$ in Intermediate forms between this and 421 occur

- 423 **P revolutus** Gill (from the ultimately revolute margin of the pileus) *a*

P plane, smoky, lead- or mouse-colour, mid darker *St* whitish *G* serrulate, whitish

Solitary or subcespitose Trunks, poplar, beech Autumn $10\frac{1}{2} \times 2\frac{1}{4} \times 2$ in

- 424 **P salignus** Quel (from one of its habitats, *Salix* willow) *a b c*

P pulvinate, plane, ochreous, smoky slate-colour or almost black *St* almost obsolete, tan *Spores* dull whitish

Solitary, rarely cespitose or imbricate Trunks, willow ash, elm, sycamore, alder Sept-Feb $5\frac{1}{2} \times \frac{1}{2} \times 1\frac{3}{4}$ in

- 425 **P acerinus** Gill (from one of its habitats *Acer* maple) *a b*
 White

P tough, fleshy, thin, silky-villous, pale rufous when dry *St* sublateral or obsolete, villous *G* very crowded, thin, white then yellow, livid-vinous when dry

Trunks, maple, ash, plane Autumn $3 \times 1\frac{1}{2} \times 1$ in

b Dimidiata

- 426 **P petaloides** Quel (from a fancied resemblance to a leaf, Gr *petalon*, a leaf, *eidos*, appearance) *a b c*

P plane, subumbonate, fuscous, brown, ochreous or purplish *St* sublateral, villous, whitish *G* decurrent, white, yellowish or ashy

Gregarious, cespitose or imbricate Taste bitter Terrestrial and on stumps, pine, rare Aug-Jan $3\frac{3}{4} \times 1 \times 1$ in

- 427 P pulmonarius** Quel (from its lung-like texture, *pulmo*, a lung) *a c*

P plane, smooth, ashy or rufous *St* lateral, whitish *G* decurrent or adnato-decurrent, whitish or ashy

Solitary, rarely caespitose Trunks, beech Sept $2\frac{5}{8} \times \frac{3}{4} \times \frac{1}{2}$ in Var *juglans* Karst grows on walnut

- 428 P serotinus** Gill (from its late appearance *serotinus*, late) *a b c*

P reniform, olivaceous *St* lateral, brilliant deep yellow, squamulose, spotted near gills, somewhat rich brown *G* crowded, sinuato-decurrent, cream ochre to bright yellow or orange

Taste insipid, odour apple like Trunks, posts, ash birch, hornbeam, alder, beech, rails Oct-Dec $2 \times \frac{3}{4} \times \frac{1}{2}$ in

- 429 P mitis** Quel (from its taste *mitis*, mild) *a b c*

P reniform, gristly, without a viscid pellicle, pale flesh colour or tan *St* lateral, minutely scaly, whitish flesh-colour or tan *G* somewhat rounded, white

Taste and odour almost obsolete Dead trunks sticks fir, larch Oct-Dec $\frac{5}{8} \times \frac{1}{2} \times \frac{1}{4}$ in Sometimes $1\frac{1}{2}$ in in diam Somewhat like 1444 in general appearance

- 429a P rufipes** Sacc & D Sacc (from the reddish stem, *rufus*, red *pes*, a foot) *a b*

P dimidiate or reniform, convex, membranous very glutinous when moist white mid salmon, marg incurved *St* becoming recurved, vinous-reddish, salmon-red within, white in centre, base white-downy *G* adnate, broad, distant, white, interstices pale salmon

On wood Autumn $\frac{1}{2} \times 1\frac{3}{4} \times \frac{1}{4}$ in

- 430 P GADINOIDIS** Sacc (from its resemblance to the bivalve *Gadina*, Gr *eidos*, appearance) *a b c* White

P convex, hygrophanous, smooth or clothed with adpressed flocci, no gelatinous upper stratum *St* minute, lateral or none *G* adnate, slightly branched

Tree fern stems May Diam $\frac{1}{4}$ in Reniform as seen from below

- 431 P limpidus** Gill (from its pellucid substance *limpidus*, clear) *a b c*

P reniform, plane, subumbonate, whitish *St* sublateral, rudimentary or obsolete *G* sinuato-decurrent, white or straw-whitish

Taste mild Stumps, ash, willow, beech Dec Diam $1\frac{1}{2}$ in

- 432 P reniformis** Karst (from the kidney-shaped pileus, *renis*, a kidney, *forma*, form) *a*

P plane, whitish, or greyish-brown *St* lateral, rudimentary *G* sinuato-decurrent, paler than *P*

Branches, silver fir, on the ground amongst moss Aug-Oct Diam 1 in

- 433 P Laurocerasii** Sacc (from its habitat, stems of cherry-laurel, *Prunus Laurocerasus*) *a b*
P convex, oyster-shaped, sulcate, pale brownish-salmon *St* obsolete *G* very broad, adnate, veined, salmon-white
 Oct Diam $1\frac{1}{2}$ in
- 434 P tremulus** Qué! (from its tremulous habit) *a b c*
P reniform, depressed behind, fuscous-grey, pale slate or brown
St attenuate downwards, grey *G* adnato-decurrent, whitish-umber or greyish
 Solitary On the ground, on moss, fungi, e g 1790, when growing on moss, rare Aug-Dec $1\frac{1}{4} \times \frac{1}{8} \times \frac{1}{4}$ in
- 435 P acerosus** Qué! (from its habitat, amongst dead pine-leaves, *acerosus*, full of chaff or husk) *a b c*
P plane, reniform, membranous, whitish, brownish or greyish
St faintly umber-whitish *G* adnate, branched, colour as *P* or paler
 Taste insipid, somewhat disagreeable Lawns, wood, gravel, leaves, pine wood, pine leaves, *Sp/ a, num* rare Aug-Dec $1\frac{1}{2} \times \frac{1}{4} \times \frac{1}{8}$ in
 Resembles 1388
- *c Resupinate*
- 436 P porrigens** Gill (from its stretched out habit, *porrigo*, to stretch out) *a b c* White
P at length plano-depressed, undulate *G* thick, sometimes forming pores *Flush* thin, subcartilaginous
 Imbricate Odour pleasant or insipid Stumps, chiefly pine June-Nov
 Diam 6' in Base villous
- 437 P septicus** Quel (from its habitat, rotten wood, *septicus*, putrifying) *a b c* White
P convex, villous *St* lateral, villous, at length disappearing
G rounded-adnate, subdistant
 Decayed wood, branches, twigs, pine, bramble, straw, dung, fungi Mar-Nov $\frac{3}{8} \times \frac{1}{8} \times \frac{1}{16}$ in
- 438 P mastrucatus** Sacc (from its somewhat woolly coat, *mastruca*, a sheepskin) *a b c*
P ear-shaped, plane, squarrose-scaly, greyish- or whitish-brown
G adnato-decurrent *Flush* mouse-colour
 Imbricate Old trunks, logs, beech, amongst moss and lichens, rare
 Diam $3\frac{3}{8}$ in
- 439 P atrocaeruleus** Gil! (from the colour of the pileus, *ater*, black, *cæruleus*, azure-blue) *a b c*
P plane, reniform, marg ochreous-sienna *G* whitish straw-colour *Flush* with an olive middle stratum
 Gregarious, subimbricate Odour pleasant Trunks, birch, elm, poplar, beech, etc Oct-Dec Diam $1\frac{1}{2}$ in
- 440 P Leightonii** Sacc (after the Rev W A Leighton) *a b c*
P at first obliquely conical, furfuraceous, umber or lead-colour
G thick, distant, forked at base, pallid tan
 Wood, rotten rails Dec Diam $\frac{1}{2}$ in Might be mistaken for 444

- 441 P algidus** Quél (from its frequent growth in northern countries, *algidus*, cold) *a b c*
P plane, subreniform, pruinose when young, viscid, brown.
G adnate, becoming pallid yellow
 Usually crespitose and imbricate Trunks, mountain ash, willow Aug - Oct Diam $2\frac{1}{2}$ in
- 442 P fluxilis** Gill (from the gelatinous, upper stratum of the pileus, *fluxilis*, fluid) *a*
P plane, reniform, umber *G* adnato-rounded, whitish *Flesh* a gelatinous stratum without a membrane
 Solitary Wood, amongst moss on trunks, sawdust, mosses Oct Diam $\frac{1}{2}$ in Not usually resupinate
- 443 P cyphellæformis** Sacc (from its resemblance to a *Cyphella*) *a b c*
P cup-shaped then conico-dependent, greyish or brownish *G* radiating from a central point, white *Flesh*, upper stratum dark brown, lower white
 Gregarious Dead herbaceous stems, *Feniculum*, *Epilobium* rare Feb - Oct Diam $\frac{3}{8}$ - $\frac{1}{2}$ in
- 444 P applicatus** Quél (from its close attachment to branches, etc., *applicatus*, closely attached) *a b c*
P cup-shaped, then expanded or reflexed, dark grey *G* radiating from a central point, lighter than *P*
 Dead branches, twigs, bramble, oak, ash, pine, *Ribes*, *Vitis* Sept - June Diam $\frac{3}{8}$ in Sometimes proliferous
- 445 P Hobsonii** Sacc (after Lieut Julian C. Hobson) *a*
P plano-convex, reniform, downy, pale grey *G* subdistant, adnate, pallid
 Stumps, larch Sept Diam $\frac{3}{8}$ in
- 446 P striatulus** Quél (from the slightly striate pileus) *a c*
P cup-shaped, not usually reflexed, fuscous or grey *G* few, radiating from a central point, lighter than *P*
 Gregarious Stumps, twigs, etc., fir, hazel, elm May-Dec Diam $\frac{1}{4}$ in
- 447 P hypnophilus** Sacc (from its frequent habitat, *Hypnum*, *Gr philos*, loving) *a c* White
P at length plane, subreniform *St* villous, at length vanishing
G narrow, radiating from a central point
 On the larger mosses, leaves, leaves and stems of grass Sept-Dec Diam $\frac{3}{8}$ in Resembles 553 in habit
- 448 P chioneus** Gill (from its colour, *Gr chion*, snow) *a b c*
P subresupinate, convex, villous *St* lateral, villous, at length vanishing *G* very distant, broad, radiating from a central point
 Wood, decorticated elder, leaves, dung, bone, rare Sept-Dec $\frac{1}{4} \times \frac{1}{2} \times \frac{3}{8}$ in

SERIES II HYPORHODII Fr

(From the rose-coloured gills, Gr *hupo*, beneath, *rhodon*, a rose)

Spores white when young, then pale rose-colour, salmon, yellowish-salmon, salmon-whitish, nankeen, whitish-vinous or salmon-brownish, never lilac, elliptical and smooth or globose or nodulose and angularly warted

There is no analogue of *Amanita* amongst the British *Hyporhodii*, but an analogous genus, *Mitraria*, occurs in Australia

It is remarkable that Sowerby has modelled an example of 450 with an ample annulus, if correct this plant would be a *Metraria*
Genera XII-XX.

XII VOLVARIA Quel

(From the volva)

Veil universal, entirely enveloping the young plant *Hymenophore* distinct from the fleshy stem *Stem* central, simple, solid, volvate,

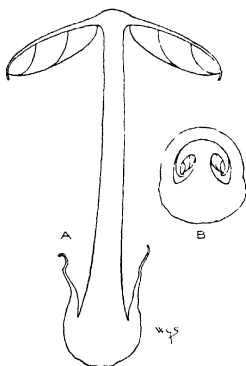


Fig. 21 —A section of *Volvaria voluca* Quel one third natural size B of young plant showing universal veil half natural size

without cartilaginous bark *Gills* free, at first white, then rose or salmon, sometimes becoming brownish *Spores* smooth, salmon or rose colour (Fig 21)

All the species are beautiful, some appear in spring and early summer They grow in gardens, hothouses and pastures, and on dung, manured ground and rotten wood, 451 grows on the pileus

of 153 They are almost all tasteless or insipid, 455 is fetid and said by Letellier to be poisonous None are known to be edible

Volvaria agrees in structure with *Amanitopsis*, *Acetabularia* and *Chitonia* Species 449—457

Pileus dry, silky or fibrillose 449—453

Pileus more or less viscid, smooth 454—457

449 **V bombycina** Quel (from the silky pileus, *bombyx*, silk) *a b c*

P broadly umbonate, white or pale brownish *St* colour as *P*

Vo large, lax, ochre-sienna or umber *G* becoming rufous

Solitary or caespitose Decayed wood, stumps, hollow trees, ash, elm, birch
June-Sept $8\frac{1}{2} \times 7 \times \frac{1}{2}$ in

450 **V volvacea** Quel (from the large volva) *a b c*

P campanulate, subumbonate, black-fibrillose on a brown ground or brown-fibrillose on a white ground *St* white *Vo* large, lax, umber

Gregarious Reputed poisonous Stoves on tan, roadsides $5 \times 7 \times \frac{1}{2}$ in
Sowerby has modelled an example of this with a large annulus

451 **V Loveiana** Gill (after the Rev R F Lowe) *a b c*

P convex, white-silky *St* white *Vo* lax, whitish *G* thick

Gregarious, subcaespitose On 153 and other species of *Clitocybe* $2\frac{1}{2} \times 2 \times \frac{1}{8}$ in

452 **V Taylorii** Gill (after Michael A Taylor) *a b c*

P expanded, subumbonate, rimose, whitish, marg faint umber

St white *Vo* lax, small, white or umber *G* sinuato-free, irregular, attenuate near *St*

Odour none On the ground, gardens July-Oct $2\frac{3}{8} \times 2 \times \frac{1}{4}$ in Variable in size, sometimes as small as 453 and smaller than 457

453 **V TEMPERATA** Sacc (from its growing in temperate green-houses) *a b*

P campanulate, umbonate, pulverulent, pale ochreous sienna, marg striate *St* white *Vo* ample, faintly ochreous

Greenhouses Feb $\frac{5}{8} \times \frac{5}{8} \times \frac{1}{16}$ in

454. **V speciosa** Gill (*speciosus*, handsome) *a b c*

P campanulate, subumbonate, whitish, greyish or brownish, mid darker *St* attenuate upwards, white *Vo* bulb like, white

Odour strong Roadsides, rubbish heaps, manure heaps, rare June-Oct $4 \times 6\frac{1}{2} \times \frac{1}{4}$ in

455 **V gloiocephala** Gill (from its glutinous pileus, Gr *gloios*, sticky, *kephale*, a head) *a b c*

P convex, subumbonate, whitish, marg striate, greyish or brownish, mid darker *St* subfibrillose, pale brownish or tawny *Vo* bulb-like, adpressed, brown *G* serrulate, becoming reddish

Probably poisonous Taste disagreeable, odour strong, offensive, like putrid broad beans On the ground June-Nov $4\frac{1}{2} \times 6\frac{1}{2} \times \frac{1}{2}$ in Fragments of *Vo* often left on *P*

456 V media Gill (from its intermediate position between 455 and 457) *a b c*

P convexo-plane, subumbonate, white, mid pale brownish, marg pale rose *St* white *Vo* small, lax, spreading, whitish

Woods, on the ground Aug-Oct $2\frac{1}{4} \times 3 \times \frac{1}{4}$ in

457 V parvula Quel (*parvulus*, small) *a b c* Whitish

P convexo-plane, subumbonate *Vo* large, lax

Gregarious Pastures, gardens, fir woods, dead wood, frequent May-Oct $1\frac{1}{2} \times 1\frac{1}{2} \times \frac{1}{8}$ in A minute form of this occurs in stoves

XIII ANNULARIA Gill

(From the annulate stem)

Veil universal, concrete with the cuticle of the pileus *Hymenophore* distinct from the fleshy stem *Pileus* plane or broken up into minute squamules *Stem* central, annulate, hollow *Gills* free (Fig 22)

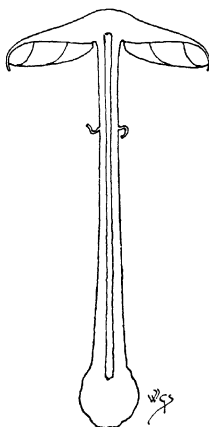


Fig 22—Section of *Annularia lævis* Gill
One half natural size

Terrestrial *Annularia* agrees in structure with *Lepiota*, *Togaria* and *Psalliota*

457a A lævis Gill (from the usually smooth pileus, *lævis*, smooth) *a b*

P convex, expanded, obtuse to subumbonate, smooth, glabrous or minutely squamulose, white or pallid *St* slightly attenuate

upwards, even, smooth, silky, bulbous, colour as P *A* somewhat distant, large, becoming free *G* free to distant, thin, somewhat crowded, white, then salmon *Flesh* somewhat firm white

Bushy places, amongst grass Aug - Oct $3\frac{1}{2} \times 5\frac{1}{2} \times \frac{3}{8}$ in

XIV PLUTEUS Quel

(From a fancied resemblance in the pileus to the roof of a turret or sentry box, *pluteus*)

Veil represented by the fibrils, flock or pruina of the pileus *Hymenophori* distinct from the fleshy stem *Stem* central, simple *Gills* free, white, then usually salmon, or with a shade of yellow

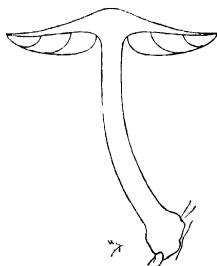


Fig 23—Section of *Pluteus cervinus* Quel
One third natural size

Spores smooth or warted, pale rose, salmon or somewhat reddish (Fig 23)

Mostly growing on or close to tree-trunks, appearing from the spring to late autumn They are all beautiful and tasteless, none are edible

Pluteus agrees in structure with *Hiatula*, *Plutolus* and *Pilosae*

Species 458—472

Cuticle of pileus separating into fibrils or flocci 458—463

Pileus pruinose, atomate, somewhat pulverulent 464—467

Pileus naked, smooth 468—472

458 P cervinus Quel (from the fawn-brown pileus, *cervinus*, a deer) *a b c*

P expanded, broadly umbonate, marg entire *St* solid, whitish, black-fibrillose, lighter above *Flesh* silky-white

Tasteless, insipid, or subacid *Trunks*, fir, pear, sawdust, earth, straw, dung, common April-Nov $4\frac{1}{2} \times 4\frac{1}{2} \times \frac{1}{2}$ in Sometimes mistaken for the mushroom *Var eximius* Mass rufous black $6\frac{1}{2} \times 5 \times 1\frac{1}{2}$ in Some

times *P* 12 in in diam Var *petasatus* Mass, *P* greyish white $6 \times 8 \times \frac{3}{4}$ in
Var *patricius* Mass, *P* scaly Var *Bullii* Mass, *P* deep brown
 $6\frac{1}{2}$ in in diam

459 *P. umbrosus* Gill (from its habitat, *umbrosus*, shady) *a b*

P convex, broadly subumbonate, wrinkled, umber, marg fimbriate with V *St* solid, villous-scaly, umber-whitish *G* fuliginous-fimbriate at marg

Dend wood, fir, oak Sept $2\frac{3}{8} \times 2\frac{1}{2} \times \frac{1}{16}$ in This has less claim to specific rank than var *eximius* of 458

460 *P. ephebius* Gill (from the down on the pileus *ephebius*, like a youth) *a b*

P convex, tomentose, pale slate-blue or lilac, sometimes slate *St* stuffed, whitish or bluish *G* salmon

Rotten wood, trunks $2\frac{1}{8} \times 2\frac{1}{2} \times \frac{1}{4}$ in

461 *P. salicinus* Quel (from its usual habitat, willow, *Salix*) *a b*

P convex, subumbonate, subpilose, pale blue-grey, mid slightly wrinkled *St* colour as *P*, or clouded greenish

Willow, bramble, alder Feb-Dec $1\frac{3}{4} \times 2\frac{1}{2} \times \frac{1}{4}$ in Var *beyllus* Karst *P* greenish streaked, alder Var *floccosa* Sacc, two or three times smaller than 460 to which it is allied

462 *P. hispidulus* Gill (from the slightly hispid pileus) *a b*

P convex, grey or purplish-grey *St* hollow, silvery-white

Stumps, beech, earth in hothouses $\frac{5}{8} \times 1\frac{1}{2} \times \frac{1}{16}$ in

463 *P. pellitus* Quel (from the separable membrane of the pileus, *pellitus*, clad in skins) *a b*

P hemispherical, silky-white *St* stuffed, white

Odour disagreeable Trunks, earth, rotten branches, twigs, chips, roots of trees, amongst grass in pastures July-Sept $1\frac{1}{8} \times 1\frac{3}{8} \times \frac{3}{8}$ in

464 *P. nanus* Quel (from its small size *nanus* dwarf) *a b c*

P convex, umber or slate-brown mid wrinkled *St* solid, whitish

Hatch, rotten wood, rotten sawdust, earth, sticks, leaves and in gardens Aug-Oct $1\frac{1}{8} \times 2\frac{3}{8} \times \frac{1}{16}$ in Var *lutescens* Karst has an orange yellow *St*, sulphur yellowish flesh and salmon or sulphur *G* Var *major* Mass is larger than the type

465 *P. spilopus* Sacc (from the spotted stem, *G*1 *spilos*, a spot, *pus*, a foot) *a b c*

P convex, subumbonate, rugulose, brown *St* stuffed, tan-white or greyish, black-dotted

Stumps, wood Oct $2\frac{1}{2} \times 1\frac{3}{8} \times \frac{1}{4}$ in Sometimes small, $\frac{5}{8} \times 1$ in or less

466 *P. semibulbosus* Gill (from the slightly enlarged base of stem) *a b*

P hemispherical, sulcate, mealy, white *St* hollow, white, base sienna and white cottony *G* distant, marg entire

Wood, branches, rotten wood $\frac{5}{8} \times \frac{7}{8} \times \frac{1}{8}$ in

- 467 P violarius** Sacc (from its bright violet exudation) *a b*
P expanded, smooth, even, spongy, dry, purple, crimson-purple or sienna *St* hollow, silky-white, black-fibrillose on a pale umber ground below *G* serrulate, crowded *Flesh* grey
 Gregarious Taste pleasant, odour none Stumps, rotten wood $1\frac{1}{2} \times 1 \times \frac{1}{2}$ in
- 468 P roseoalbus** Gill (from the rosy-white or salmon pileus) *a b*
P expanded, subumbonate *St* solid, pale rose or white *Flesh* pale salmon
 Trunks, elm Sept-Nov $3\frac{1}{2} \times 3\frac{1}{2} \times 1\frac{1}{2}$ in
- 469 P leoninus** Quel (from the colour of the pileus, often lion-tawny) *a b c*
P convex, striate, lemon, yellow, orange, tawny or scarlet, mid darker or orange with sulphur marg *St* solid, yellowish *G* often with a yellowish edge
 Cespitose Wood, rare Sept-Jan $2\frac{3}{4} \times 2\frac{1}{2} \times \frac{1}{4}$ in Var *coccineus* Mass, *P* crimson-orange or vermilion
- 470 P chrysophæus** Quel (from the dusky-golden stem, Gr *chrysos*, gold, *phaios*, dusky) *a b c*
P plane, cinnamon, marg striate *St* sulphur, sulphur-white or yellowish *G* colour as *St*, then salmon
 Taste insipid, odour none or subacid Rotten wood, rotten sawdust, rotten ash, beech stumps, boards, earth, hollow trees May-Nov $2\frac{3}{8} \times 2\frac{1}{8} \times \frac{1}{8}$ in
- 471 P phlebophorus** Gill (from the strongly veined pileus, Gr *phleps*, a vein, *phero*, to carry) *a b c*
P convex, subumbonate, umber, marg plain *St* hollow, white *Flesh* greyish-white
 Dead stumps, rotten wood, sawdust, sticks, rare June-Oct $2 \times 2\frac{3}{4} \times \frac{1}{4}$ in
- 472 P umbrinellus** Gill (from its umber pileus) *a b*
P submembranous, expanded, sometimes subumbonate, marg fimbriate *St* hollow, fibrous, shining, whitish becoming brownish
 On the ground Oct $1\frac{1}{4} \times 2\frac{7}{8} \times \frac{1}{8}$ in

XV ENTOLOMA Quel

(From the potential, rather than definite veil, Gr *entos*, within, *loma*, a fringe)

Veil universal, faintly indicated by silkiness, flock, or scaliness *Hymenophore* confluent and homogeneous with the fleshy stem *Pileus* somewhat fleshy, margin at first incurved *Stem* central, simple, fleshy, fibrous, soft or sometimes waxy *Gills* sinuato-adnexed, sinuate or adnate often separating from stem, at first white then usually salmon *Spores* elliptical and smooth or subglobose and coarsely warted, rosy or salmon (Fig 24)

All the species grow on the ground in fields and woods chiefly after heavy rain, several appear in spring and summer, none are known to be edible, some are poisonous, many smell of meal

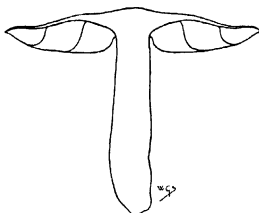


Fig 24 —Section of *Entoloma rhodopolium* Quel
One quarter natural size

Entoloma agrees in structure and habit with *Tricholoma* and *Hiboloma*, and to a great extent with *Hypholoma*. It is necessary to carefully distinguish the rose- and salmon coloured spores of *Entoloma* from the sometimes pale clay-coloured spores of *Hiboloma*

Species 473—502

- a Genuina* Pileus fleshy, when full grown smooth, often viscid but not hygrophanous, not innato-floccose or squamulose 473—483
- b Lepromidea* Pileus dry, except 484, flocculose, somewhat scaly 484—490
- c Nolanidea* Pileus thin, commonly irregular and repand, for the most part scissile, hygrophanous, smooth, with a silky appearance when dry 491—502

a Genuina

- 473 **E sinuatum** Quel (from the sinuate margin of the pileus) *a b c*
P expanded, then repand, white or shaded tan, lavender, pale yellowish or brownish *St* solid, whitish *G* at first livid-whitish, then pinkish, at length brownish salmon

Gregarious Poisonous Odour strong pleasant somewhat of burnt sugar
Woods, mixed July—Oct $7 \times 5 \times 1$ in *P* sometimes 8 to 10 in diam Young examples are sometimes mistaken for the mushroom

- 474 **E lividum** Quel (from the livid colour of the pileus) *a b*
P plane, broadly subumbonate, livid tan, mid pale yellowish-buff *St* subhollow, whitish *G* adnexo-rounded, salmon

Poisonous Odour of new meal or none Woods April—Oct $4\frac{1}{2} \times 3\frac{1}{2} \times \frac{7}{8}$ in
Sometimes mistaken for the mushroom Var *roseum* Sacc, *P* slightly rose tinted, logs

- 475. E. prunuloides** Quel (from its odour being like that of **503** *Chitopilus prunulus* Quel) *a b c*

P convex, broadly subumbonate, whitish, yellowish, greyish or brown, marg striate *St* solid, white *G* emarginate, salmon

Scattered Odour of new meal, after maturity like decaying turnips Woods, amongst moss and grass, uncommon May-Sept $2\frac{1}{2} \times 2 \times \frac{1}{2}$ in

- 475a E porphyrophæum** Karst (Gr *porphyrus*, purple, *phaios*, dusky) *a*

P campanulate, expanded, subumbonate, not hygrophaneous, even, almost glabrous, opaque sooty-brown or deep umber, becoming paler and mouse-colour when dry, marg wavy, often incised and lobed *St* solid, attenuate upwards fibrous, soft, opaque sooty-purple or brownish, base white-downy *G* truncate behind, almost free, subdistant, ventricose, greyish-white to reddish-grey or salmon *Flesh* white

Amongst grass Autumn $3\frac{1}{2} \times 4\frac{1}{2} \times \frac{1}{2}$ in Must not be confused with **486**

- 476 E repandum** Gill (from the pilus being occasionally repand), *a b c*

P expanded, umbonate, whitish or faintly ochreous, marg lobed *St* solid, colour as *P* *G* emarginate, salmon or faintly ochreous

Odour of new meal Amongst grass, rare June-Oct $3 \times 2\frac{1}{2} \times \frac{1}{2}$ in Not unlike some forms of the mushroom

- 476a E erophilum** Karst (from its frequent appearance in spring, Gr *eros*, spring, *philos*, loving) *a b*

P convex, obtuse to umbonate, venoso-striate, dry, pale ashy or pale olive-brownish, mid somewhat darker *St* solid, equal or attenuate downwards, farinose, white, shaded ivory *G* rounded-adnate, broad, subdistant, pallid or pale salmon *Flesh* white

Woods, amongst grass, often in large circles Sept $1\frac{1}{2} \times 2\frac{1}{2} \times \frac{1}{2}$ in

- 477 E placenta** Quel (from the shape of the pilus, *placenta*, a flat cake) *a b*

P flat, umbonate, brownish or brown *St* solid, tan-brownish *G* emarginate, pallid flesh-colour *Flesh* thin

Solitary Taste at length acid, odour none Hedge rows, damp places, rare April Oct $2\frac{1}{2} \times 3 \times \frac{1}{2}$ in

- 478 E helodes** Gill (from its frequent habitat, Gr *helos*, a marsh) *a*

P umbonate, ashy or sooty-purplish *St* hollow, ashy or greyish *G* adnate, salmon *Flesh* thin, pallid

Taste watery, odour of new meal Grassy places, heathy pastures, turf swamps, moors Autumn $2\frac{1}{2} \times 1\frac{1}{2} \times \frac{1}{2}$ in

- 479 E Batschianum** Karst (after Aug Jo Georg Car Batsch) *a c*

P convex, subumbonate, dark fuscous *St* hollow, grey *G* adnate, subsinuate, ashy or sooty *Flesh* colour as *P*, white when dry

Odour none Woods, moist places, amongst grass in damp places Oct $1\frac{1}{2} \times 3\frac{1}{2} \times \frac{1}{2}$ in Resembles one of the *Pratelli* as **804**

480 E. Bloxamii Sacc (after the Rev A Bloxam) *a b c*

P convex, umbonate or papillate, waved, splitting, dull dark purple *St* solid, lighter than *P* *G* adnexed, pale salmon

Downs and exposed pastures Sept–Nov $4\frac{1}{2} \times 2\frac{1}{2} \times \frac{3}{8}$ in Compare 482a

480a E. Farrahii Mass & Crossl (after Mr John Farrah) *a*

P cylindrico-ovate, then campanulate and somewhat repand, umbonate, smooth, fibrillose-silky, blackish-blue, marg pallid

St solid, ventricose, glabrous, colour as *P* with a white base *G* sinuato-adnexed broad, ventricose, somewhat distant,

salmon-colour

Gregarious Taste mild, odour none Amongst short grass $2\frac{1}{2} \times 2\frac{1}{2} \times \frac{3}{8}$ in Differs from its allies in its smooth, elliptical spores

481 E. ardosiacum Quel (from its slate-coloured pileus, *ardosia*, a slate) *a c*

P convex steel-blue, shaded greenish brownish or purplish

St hollow, steel-blue white at base *G* free, grey then salmon *Flesh* dull pale purplish

Odour none Meadows, pastures, moist grassy places and under pines $3\frac{1}{2} \times 4 \times \frac{5}{16}$ in Might be mistaken for one of the *Pratelli* as 802

482 E. liquescens Sacc (from the gills becoming liquescent) *a b*

P campanulate, broadly subumbonate, ochreous mid sienna

St hollow, white *G* free, crowded pale slate

Gregarious Under trees April $2\frac{1}{2} \times 2\frac{1}{2} \times \frac{1}{4}$ in Deliquescent like a *Coprinus* which character with the dull pink spores and time of growth points to *bolbitis* Resembles one of the *I. attil*

482a E. madidum Gill (from the moist pileus *madidus*, moist) *a b*

P campanulate, convex, obtuse, even, glabrous, moist, often

viscid in rainy weather, shining when dry, not hygrophanous

when young blackish-violet, purple-slate, dull smalt or dull

deep cobalt, sooty when old mid umber and whitish-yellow,

marg thin, inflexed, substrate *St* hollow, sometimes solid,

fleshy-fibrous, slightly attenuate upwards, fibrillose, apex naked,

colour as *P*, base whitish *G* slightly adnexed ventricose,

greyish-white to salmon *Flesh* white

Suspected poisonous Odour strong, pungent, like 1341 Amongst moss, leaf heaps, etc $2\frac{3}{8} \times 2\frac{3}{8} \times \frac{3}{8}$ in Much like 480 in appearance

483 E. ameides Sacc (from its odour of starch) *a b*

P convex, broadly subumbonate, pale reddish grey mid darker

St stuffed, paler than *P* or almost white *G* emarginato-

adnexed, pale pink

Tasteless, odour of hay, apples, meal, linseed, orange flower water and starch Pastures Sept–Nov $2 \times 2\frac{1}{2} \times \frac{1}{2}$ in Changing to yellowish or reddish when bruised Must not be mistaken for 1222

*b Leptonideæ***484 E Saundersii** Sacc (after W Wilson Saunders) *a b*

P expanded, broadly subumbonate, then repand, glutinous, white, becoming fuscous *St* solid, silky-fibrous, whitish
G emarginato-adnexed, salmon

Cespitose On earth, river sand, sawdust, rare June-Oct $3\frac{1}{2} \times 4 \times \frac{5}{8}$ in

485 E fertile Gill (from its large, fruitful appearance) *a b*

P expanded, broadly subumbonate, pinkish-buff *St* solid, fibrillose, whitish *G* emarginato-adnexed, salmon

Woods rare Aug-Sept $6\frac{1}{4} \times 4\frac{1}{4} \times 1\frac{1}{4}$ in

485a E Rozei Qué! (after M E Roze, French mycologist) *a c*

P convexo-plane, thin, pallid grey, or somewhat pale, dull slate-grey, paler when dry, minutely white-velvety or silky shining *St* solid, tough silky-fibrillose, white *G* adnate, crowded, narrow, whitish flesh-colour

Amongst pines Oct $1\frac{1}{2} \times 2\frac{3}{4} \times \frac{3}{8}$ in Wholly dark umber when dry

486 E jubatum Karst (from the fibrillose pileus, *jubatus*, having a mane) *a b*

P expanded, umbonate, mouse-colour *St* hollow, colour as *P*
G adnexed, salmon or dusky purplish

Single or cespitose Taste watery, disagreeable Old pastures and mossy places May-Dec $3\frac{1}{4} \times 4\frac{1}{4} \times \frac{5}{16}$ in Must not be confused with 475a.

487 E resutum Karst (from the fibrillose pileus, *resutus*, ripped open) *a*

P convex, subumbonate, fuscous *St* stuffed, smooth, greyish.
G adnexed, grey or reddish-grey

Odour none Old pastures, woods Oct $1\frac{1}{2} \times 3\frac{1}{4} \times \frac{1}{8}$ in

488 E griseocyaneum Quel (*griseus*, grey, *cyaneus*, dark blue) *a c*

P campanulate, steel-grey, lilac shaded *St* hollow, fibrillose, colour as *P* or whitish *G* adnexed or adnate, ventricose, salmon

Sunny pastures, grassy places, open woods, rare Oct $1\frac{1}{4} \times 3 \times \frac{3}{16}$ in

488a E pulvereum Rea (from the mealy stem, *pulvereus*, dusty) *a.*

P campanulate then flat, minutely scaly, fuliginous, marg at first striate *St* stuffed then hollow, velvety, covered with reddish meal *G* thick, sinuato adnate, veined, somewhat distant, exceeding marg of *P*, edge irregular, pale or pinkish, then deep rose

Amongst oak leaves, under holly Oct $1\frac{1}{4} \times 2\frac{1}{8} \times \frac{1}{16}$ in

489 E sericellum Qué! (from the slightly silky pileus, *sericeus*, silky) *a b c*

P plane, whitish *St* subhollow, smooth, white *G* adnate, salmon

Gregarious Odour none Woods, grassy places, frequent July-Oct $\frac{1}{2} \times 1\frac{1}{8} \times \frac{1}{16}$ in

489a E Cookei Ch Richon (after Dr M C Cooke) *a*

P convex, expanded, pale reddish- or sienna-orange or brick-red, reticulate all over with raised pale yellowish ribs, marg incurved *St* solid, often slightly incurved, almost central, whitish, shaded pale yellowish *G* adnexed, subdistant, thickish, pale salmon *Flesh* thick at disc of *P*, thin elsewhere, colour as *G*

Stumps Autumn $1\frac{1}{2} \times 1 \times \frac{3}{8}$ in Cooke described this as a form of 471, but Ch Richon and Massee have made it an *Entoloma* I have followed them with great doubt, thinking it more probably an abnormal form of 412

490 E Thomsoni Sacc (after Dr Thomson) *a*

P flat, umbonate, velvety, grey mid reticulato-ribbed *St* sub-hollow, tomentose, paler than *P* *G* adnexed, salmon

Amongst grass in plantations Autumn $1\frac{1}{8} \times 1\frac{1}{8} \times \frac{1}{4}$ in

c Nolanidae

491 E clypeatum Quel (from the shape of the pileus *clypeus*, a shield) *a b c*

P flat, umbonate, umber or grey-brown, streaked darker *St* stuffed or hollow, paler than *P* or almost white *G* adnexo-rounded, salmon or shaded greyish or brownish

Solitary or caespitose Woods, gardens, waste places, frequent April-Oct $3\frac{1}{4} \times 4\frac{1}{4} \times \frac{1}{2}$ in

492 E nigrocinnamomeum Sacc (from the blackish cinnamon colour of the pileus) *a b*

P flat, umbonate, moist, shining, silky when dry *St* hollow, fibrillose, grey-brown *G* emarginato-rounded, reddish salmon

Gregarious Odour of new meal Pastures, amongst grass and heather Oct $3\frac{1}{8} \times 2\frac{1}{2} \times \frac{1}{8}$ in

493 E rhodopolium Quel (from its occasionally rosy-grey colour, Gr *rhodon*, a rose, *polios*, grey) *a b c*

P expanded, subumbonate varying pale to dark fuscous, livid, brown or purplish-brown *St* stuffed or hollow, smooth, whitish *G* sinuate, rose

Odour rank of new meal, of 1527, of nitric acid or none Woods, frequent May-Oct $2\frac{1}{2} \times 3\frac{1}{2} \times \frac{1}{4}$ in

494 E pluteoides Karst (from its resemblance to *Pluteus*) *a b*

P convexo-plane, subumbonate pale purplish-slate *St* hollow, fibrillose, whitish *G* emarginato-adnexed, crowded, salmon

Stumps $2\frac{1}{2} \times 3\frac{1}{4} \times \frac{1}{4}$ in

495 E majale Karst (from its appearance in May) *a*

P campanulate, subumbonate, dark ochreous or brown, becoming pale *St* hollow, whitish *G* free, salmon *Flesh* very thin

Subcaespitose Meadows, open woods, mossy places in fir woods, rare April-May $3\frac{1}{2} \times 3\frac{1}{8} \times \frac{1}{8}$ in

496 E Wynnei Sacc (after Mrs Lloyd Wynne) *a b*

P plane, smooth, sometimes umbilicate, pale umber or smoky, marg crisped, striate, at first smooth, then breaking up into minute sc *St* hollow, dusky grey *G* sinuate, veined, pallid salmon

Taste insipid, odour of bugs or like 1278 Woods, fir Sept-Nov $2\frac{1}{2} \times 3 \times \frac{3}{8}$ in Allied to 497, but with *G* less veined, less undulate and less distant

497 E costatum Gill (from the transverse ribs or veins on the gills, *costa*, a rib) *a b c*

P plane, fuscous-livid or greyish *St* hollow, colour as *P* *G* very broad, almost free, salmon

Solitary or caespitose Odour none Damp meadows, pastures, swampy ground, grass covered stumps common Aug-Nov $2\frac{1}{2} \times 2 \times \frac{1}{8}$ in

498 E sericeum Quel (from the silky pileus *sericeus*, silky) *a b c*

P plane, umber mid darker *St* hollow, pale greyish-umber *G* emarginate, greyish then rufescent

Gregarious Odour strong of new meal Meadows open woods frequent May-Oct $2 \times 2\frac{1}{2} \times \frac{1}{4}$ in This and 499 may be one species

499 E Persoonii Sacc (after C H Persoon) *a b c*

P campanulate subumbonate, silky fibrous, splitting, membranous, white, mid faintly ochraceous, marg striate to disc *St* hollow above, abruptly bulbous, cartilaginous, white *G* adnexo-adnate, pale rose or flesh-colour, then darker

Grassy places Autumn $2 \times 2\frac{1}{2} \times \frac{1}{4}$ in

500 E nidorosum Quel (from its strong odour *nidor*, reeking) *a b c*

P plane, ashy fawn-colour, whitish or purple-brown *St* stuffed, whitish *G* emarginate, salmon

Odour nitrous, alkaline, sometimes obsolete Lawns, open woods, common Aug-Nov $3 \times 3\frac{1}{2} \times \frac{1}{4}$ in

501 E speculum Quel (from the shining pileus, *speculum*, a mirror) *a c*

P plane or depressed, umbonate, whitish-straw or whitish, marg striate *St* stuffed or hollow, paler than *P* *G* adnexo-free, ventricose, salmon

Solitary or subcaespitose Odour none Amongst grass and twigs Oct $2\frac{1}{2} \times 2\frac{1}{2} \times \frac{1}{4}$ in

502 E tortipes Mass (from the twisted stem, *tortus*, twisted, *pes*, a foot) *a b*

P hygrophanous, thin, splitting, plane, depressed, umbonate, livid brown *St* solid, with a bark, striate above, pale brown within and without *G* sinuate, salmon-white

On dung Autumn $3\frac{1}{2} \times 2\frac{1}{2} \times \frac{1}{4}$ in

XVI CLITOPILUS Quel

(From the decurrent hymenophore, Gr *khitos*, a declivity, *pilos*, a cap)

Veil indicated by silkiness and flock *Hymenophori* confluent and homogeneous with the fleshy stem *Pileus* more or less depressed or umbilicate, margin at first involute *Stem* central, simple, fleshy

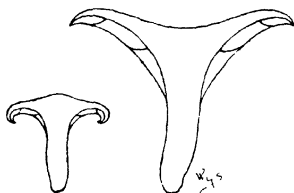


Fig 2 — Section of *Clitopilus prunulus* Quel
One half natural size

or fibrous *Gills* decurrent white, except 506, then salmon *Sporoz* smooth or warted, salmon, sometimes very pale (Fig 25)

All the species grow on the ground They have a more or less mealy odour Some are tasteless, others edible

Clitopilus agrees in structure with *Clitocybe* and in part with *Flammula* Species 503—513

a Orallie *Pileus* irregular, somewhat excentric, flexuous, somewhat hygrophanous, margin at first flocculose *Gills* deeply decurrent 503—509

b Serialle *Pileus* regular, silky or hygrophanous-silky, margin involute, naked *Gills* adnate, slightly decurrent 510—513

a Orcella

503 **C prunulus** Quel (from the pruinose appearance of the pileus)

a b c

P plane or convex, broadly subumbonate when young faintly grey, then whitish *St* solid, frequently central, paler than *P* *G* subdistant, flesh-colour

Edible Odour strong of new meal, or like 1527 Woods and open places, common June-Oct $3\frac{1}{2} \times 2\frac{1}{4} \times \frac{1}{2}$ in This and 504 are not insect eaten

504 **P orcella** Quel (from the old Italian popular name, *orgella*, like an ear) *a b c*

P plano-depressed, lobed, undulate, white *St* solid flocculose, often excentric, colour as *P* *G* crowded, whitish flesh-colour

In troops Edible Odour as in 503 or of Syringa leaf or cucumber, or fresh meal and cucumber Open grassy places, sometimes in rings 20 feet in diam, frequent June-Oct $4\frac{1}{2} \times \frac{1}{2} \times \frac{1}{2}$ in Intermediate forms occur between this and 503

505 C mundulus Gill (*mundus*, neat) *a b c*

P convex, then depressed, white *St* stuffed, sometimes excentric, white, becoming black internally at base *G* crowded, whitish salmon *Flesh* white

Taste bitter, odour none Woods, amongst leaves, uncommon Autumn $1\frac{3}{8} \times \frac{5}{8} \times \frac{3}{16}$ in In var *nigrescens* Sacc the flesh becomes wholly black

505a C Sarnicus Mass (after the place of finding—Sarnia, the Roman name for Guernsey) *a*

P campanulate, plane, subumbonate, often more or less depressed round the um, slightly striate when moist even when dry, minutely silky-flocculose, mouse-colour or grey, paler with a ruddy tinge when dry *St* minutely fistulose, equal, subflexuous, even, glabrous, white *G* subcrowded, plane nearly to the stem, then suddenly decurrent, pinkish-salmon *Flesh* very thin

On the ground, in Guernsey $1\frac{1}{2} \times 1\frac{1}{2} \times \frac{1}{10}$ in Allied to 505

506 C popinalis Gill (from its edible qualities, *popina*, a cook-shop) *a b c*

P convex, subumbonate or depressed, ashy or dull slate *St* stuffed, paler than *P* *G* crowded, grey or brown, becoming reddish

Solitary or gregarious Odour of new meal or rank and strong Downs, fields, grassy roadsides Aug–Oct $2\frac{1}{2} \times 1\frac{1}{2} \times \frac{1}{2}$ in

507 C undatus Gill (from the undulate pileus) *a b c*

P expanded depressed, sometimes much lobed, sometimes with a papilla, dull ashy or tan-ochreous *St* hollow, colour as *P* or paler, faintly salmon-shaded *G* not crowded, salmon sometimes reddish

Odour none Downs, etc Oct $1\frac{1}{2} \times 1\frac{3}{4} \times \frac{1}{4}$ in

508 C cancrinus Quel (from the frequently cracked pileus, *cancer*, a lattice) *a b c*

P hemispherical, depressed, dry, at length shining and silky fibrillose, whitish *St* stuffed or fistulose colour as *P* *G* distant flesh-colour

Odour none Pastures July–Oct $1\frac{1}{2} \times 1\frac{1}{2} \times \frac{1}{4}$

509 C eretatus Sacc (from the colour of the pileus, *creta*, chalk) *a b c*

P lobed, umbilicato-depressed *St* excentric, tomentose, colour as *P* *G* rose

Solitary or gregarious Woods, pastures, uncommon Oct $\frac{1}{2} \times \frac{1}{2} \times \frac{1}{16}$ in Resembles a small 504

*b Sericella***510 C carneoalbus** Gill (from the flesh-coloured gills and white pileus, *caro*, flesh, *albus*, white) *a b c*

P convexo-plane, subdepressed, white, faintly greyish or rufescent *St* stuffed or hollow, white *G* subdistant, flesh-colour

Gregarious Odour none Woods, heathy places Sept $1\frac{3}{8} \times 2 \times \frac{3}{16}$ in

511 C villis Gill (*villus*, insignificant) *a b c*

P convex, depressed, grey *St* fistulose, colour as *P* *G* crowded, pale salmon

Downs, amongst moss July-Aug $1\frac{1}{2} \times 2\frac{3}{4} \times \frac{1}{8}$ in

512 C stilbocephalus Sacc (from the sparkling pileus, *Gr stilbo*, to glisten, *lephale*, a head) *a b*

P campanulate, obtuse or umbonate, whitish or greyish um and marg sometimes ochreous *St* hollow, pale greyish, pallid below *G* sinuate, veined, salmon

Odour of new meal Aug-Oct $1\frac{1}{3} \times 3\frac{1}{2} \times \frac{1}{8}$ in

513 C straminipes Sacc (from the straw-coloured stem, *stramen*, a straw, *pes*, a foot) *a b*

P expanded, depressed, subumbonate, glabrous, shining-silky, whitish or faintly ochreous *St* hollow white farinose above *G* salmon

Among grass Sept $2 \times 2 \times \frac{1}{4}$ in Very fragile

XVII LEPTONIA Quel

(From the slender growth *Gr lepos*, slender)

Vel indicated by fibrillæ scales dots on stem, etc *Hymenophore* confluent with but heterogeneous from the cartilaginous stem

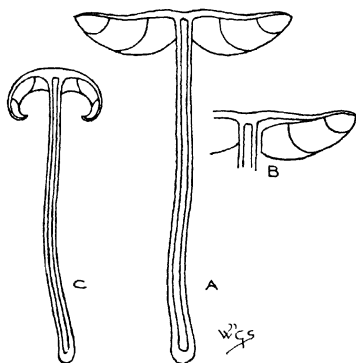


Fig. 26 - A section of *Leptonia limprichtii* Quel showing the separation of gills from hymenophore C section of *Leptonia chrysospora* Quel Natural size

Pileus thin, umbilicate or with a dark middle, cuticle fibrillose or separating into darker scales margin at first incurved *Stem* central,

simple, cartilaginous, tubular or stuffed, glabrous, sublustrous *Gills* adnexed or adnate, readily separating from their attachment to the stem, not decurrent, variable in colour *Spores* smooth or rough, salmon (Fig 26)

Many of the species are gregarious and grow in troops, they are mostly small, inodorous, except 517 and 524, and often beautiful in colour, shades of light or dark blue or green being frequent

All grow on the ground except 521, they chiefly grow in mossy pastures and marshy places One non-British species—*L parasitica* Quel—grows on the hymenium of 1370 They are most common in rainy seasons The species generally are suspected to be poisonous

Leptonia agrees in structure with *Collybia*, *Naucoria*, *Psilocybe* and *Panæolus* Species 514—528

Pileus slightly fleshy, without striæ, hygrophanous *Gills* whitish 514—519

Gills light or dark blue or bluish 520—523

Gills pallid, becoming yellow or green 524—526

Pileus somewhat striate, hygrophanous *Gills* grey or glaucous 527, 528

514 *L placida* Karst (from its pleasing appearance) *a*

P campanulate, broadly subumbonate dusky brown or dusky-slate-squamulose on a tan ground *St* stuffed, slaty-blue, black-dotted above *G* adnexed or somewhat adnate salmon-white *Flesh* brownish or lavender

Usually solitary Ly beech trunks Autumn $2 \times 2\frac{1}{2} \times 1\frac{1}{8}$ in

515 *L anatina* Quel (from the colours *anatinus*, pertaining to a duck) *a b c*

P campanulate, broadly subumbonate, umber-squamulose *St* stuffed purple-bluish or smalt above, brown and whitish below *G* adnexed or somewhat adnate, pale salmon

Fields Oct $1\frac{1}{8} \times 1\frac{1}{2} \times \frac{1}{4}$ in

516 *L lappula* Quel (from the prickly *pilcus*, *lappa*, a burr) *a*

P convex, umbilicate, grey or purple-slate, mid black-punctate *St* hollow, lilac, shaded brownish *G* subadnate, broad, white, faint greyish or whitish-salmon

Odour none Amongst beech leaves Autumn $1\frac{1}{2} \times 2\frac{1}{2} \times 1\frac{1}{8}$ in

517 *L lampropus* Quel (from the lustrous stem, Gr *lampros*, shining, *pous*, a foot) *a b c*

P expanded, depressed, mouse-colour, steel-blue, pallid yellowish, brownish or brown *St* fistulose, steel-blue, pale slate or purplish, brownish below, white at base *G* adnexed or subadnate, broad, pale salmon

Taste and odour somewhat strong, disagreeable Pastures, common July-Nov $1\frac{3}{8} \times 2\frac{1}{4} \times \frac{1}{8}$ in

- 518 L æthiops** Gill (from the black pileus and stem, Gr *æthiops*, an Ethiopian) *a*
P plano-depressed, smooth *St* stuffed, fuscous-blackish *G* subadnate or adnexed, narrow, pale salmon-white
 Woods, grassy places Sept $1\frac{1}{2} \times 2\frac{1}{2} \times \frac{1}{8}$ in
- 519 L solstitialis** Gill (from its sometimes appearing in the summer solstice—June) *a*
P plane, umbonate, fuscous, brown- or olive-shaded *St* fistulose, dusky, whitish above or as *P* *G* emarginate, pale salmon
 Amongst stones, grassy ground, woods Aug–Sept $1\frac{1}{2} \times 2 \times \frac{1}{8}$ in
- 520 L serrulata** Quel (from the black-toothed edge of the gills, contrasted with **528** *serrula*, a saw) *a b c*
P convex, depressed, blackish-blue *St* fistulose, paler than *P* *G* adnexed or adnate, slate-whitish, then grey-salmon, varying slate-purplish *Flesh* slate-white
 Sometimes caespitose Pastures and grassy woods June–Oct $1\frac{1}{2} \times 2\frac{1}{2} \times \frac{1}{8}$ in
- 521 L euchroa** Gill (from its fine colour, Gr *euchroos*) *a b c*
P convex, subumbonate, purple-blue or bright smalt-purple *St* stuffed, colour as *P* or lighter, or bluish flesh-colour *G* adnexed or subadnate, pale grey-blue, blue, purple-blue or slate
 Solitary, gregarious or caespitose Probably poisonous Woods, trunks stumps, branches, alder hazel, rare Aug–Oct $1\frac{3}{4} \times 2 \times \frac{1}{8}$ in
 Pileus sometimes $\frac{1}{4}$ in or less in diam
- 522 L chalybea** Quel (from its steel-blue colour Gr *chalups*, steel) *a b c*
P plane, subumbonate, separable, dark violaceous, brownish-slate or slate with satin-like threads from mid to marg *St* stuffed, colour as *P* *G* adnate, bluish-grey whitish, pale olive-salmon, salmon or purplish
 Taste somewhat mushroom like, but strong and unpleasant Pastures, frequent July–Oct $1\frac{3}{8} \times 1\frac{1}{8} \times \frac{1}{8}$ in
- 523 L lazulina** Quel (from the lapis lazuli colour of the stem) *a b*
P expanded, dusky-black, steel-slate dark-brown-streaky *St* fistulose, light or dark blue *G* adnate, colour as *St*, then shaded salmon *Flesh* slate-steel
 Gregarious Amongst moss and grass Sept $\frac{7}{8} \times 2\frac{1}{8} \times \frac{1}{16}$ in
- 524 L incana** Gill (*incanus*, hoary) *a b c*
P plane, umbilicate, striate, olive- or bronzy-green, streaked *St* fistulose, colour as *P* or verdigris or greenish-blue *G* adnexed or adnato-toothed, whitish-green then salmon
 Gregarious Odour strong of mice Woods, pastures, downs, frequent July–Oct $1\frac{1}{8} \times 2 \times \frac{1}{16}$ in
- 525 L formosa** Gill (*formosus*, beautiful) *a b*
P plane, broadly umbilicate, yellow or brownish, minutely sooty-squamulose *St* fistulose, yellow *G* adnato toothed, light salmon-yellow, then pale flesh-colour
 Amongst *Equisetum*, grass, commons, pine woods Sept $2\frac{1}{2} \times 3\frac{1}{2} \times \frac{1}{8}$ in
 Var *suavis* Sacc *St* steel bluish

- 526. *L. chloropolia*** Gill (from the pale green-grey pileus, *Gr chloros*, greenish-yellow, *polios*, hoary) *a*
P flat, slightly subumbonate, livid or sulphur-livid, mid black-squamulose *St* fistulose, colour as *P* above, pale grey-bluish below *G* adnate, salmon-white
 Grassy places, woods Oct $1\frac{5}{8} \times 2\frac{5}{8} \times \frac{1}{8}$ in
- 527 *L. asprella*** Quel (*asper*, rough) *a b c*
P expanded, broadly umbilicate, striate, smoky or mouse-colour, mid villous-squamulose *St* fistulose, grey-white *G* adnato-rounded, at length grey-salmon
 Open pastures, grassy places, uncommon Oct $1\frac{3}{8} \times 1\frac{3}{8} \times \frac{1}{8}$ in
- 528 *L. nefrens*** Quel (from the edge of the gills being without teeth, contrasted with 520 *ne*, not, *frendo*, to bite) *a*
P flat, depressed, smoky, yellowish-umber or olivaceous *St* fistulose, lighter than *P*, or fuscous-livid *G* adnexed or adnate, at length light red with a blackish edge
 Grassy places Autumn $1\frac{1}{8} \times 1\frac{3}{8} \times \frac{1}{8}$ in

XVIII *NOLANEA* Quel

(From a fancied resemblance in the pileus to a little bell, *nola*)

Vul indicated by fibrils, squamules silkiness or flock Mr George Massee has observed a rudimentary annulus in 534 *Hymenophore*

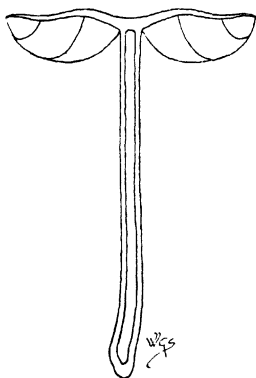


Fig 27 —Section of *Nolanea pasqua* Quel
 Natural size

confluent with but heterogeneous from the cartilaginous stem
Pileus submembranaceous, more or less campanulate, subpapillate or

subumbonate, not umbilicate, except 536 and 542, striate, even or floccose, margin straight, at first adpressed to the stem, not involute. *Stem* central, simple, fistulose or stuffed, cartilaginous. *Gills* free or adfixed, not decurrent, usually whitish at first, then salmon or rose. *Sporus* rose-coloured or salmon (Fig 27)

The species are thin, slender, and usually brittle, some are tough. They are terrestrial except 541, and appear in summer and autumn on grassy hills and in damp places in woods. The group generally is suspected to be poisonous.

Nolanea agrees in structure with *Mycena*, *Galeria*, *Psathyra*, and *Psathyrella* Species 529—543

Pileus dark-coloured, hygrophanous. *Gills* grey or fuscous 529—533
Gills becoming yellow or rufescent 534—537
Pileus hygrophanous. *Gills* shining white then rosy 538, 539
Pileus not hygrophanous. *Gills* whitish 540—543

529 *N pascua* Quel (from its habitat, pastures) *a b c*

P flat or subumbonate, silky, grey- or pinkish-brown. *St* striate, faintly brownish or ochreous, or almost white. *G* adnato-adnexed, pale salmon.

Odour none. Fields, open woods, common. May—Nov. $1\frac{1}{2} \times 2\frac{3}{8} \times \frac{5}{16}$ in.

530 *N Babingtonii* Sacc (after Prof C C Babington) *a*

P conico-campanulate, ash-grey, mid dark-brown-squamulose. *St* equal, downy, dark brown. *G* adnato-ascending, ashy-grey.

Woods, rare. Oct—Nov. $\frac{1}{2} \times 1\frac{1}{8} \times \frac{1}{16}$ in.

531 *N mammosa* Quel (from the shape of the pileus, *mamma*, a breast) *a b c*

P umber or smoky. *St* smoky white-brown. *G* adnexed, grey then salmon.

Lawns, woods. Feb. $2\frac{1}{8} \times 3\frac{1}{2} \times \frac{3}{16}$ in. Often grows in company with 1238.

531a *N papillata* Bres (from the papillate pileus)

P submembranaceous, subcampanulate, convex, expanded, striate, fuscous-bay becoming cinnamon. *St* glabrous, shining, obsoletely white-mealy at apex, white-tomentose at base. *G* sinuato-adnate, somewhat crowded, livid white becoming fuscous flesh colour. *Flesh* colour as *P* but paler.

Odour pleasant sometimes absent. In grassy or woody places. Sept. $1\frac{1}{4} \times 2\frac{1}{4} \times \frac{1}{16}$ in.

532 *N juncea* Quel (from its usual habitat, rushy places, *juncus*, a rush) *a b*

P hemispherical, papillate or subumbilicate, smoky or umber. *St* smooth, reddish-brown. *G* adnato-ascending grey- or brownish-salmon.

Odour none. Woods, commons. Oct. $1\frac{1}{4} \times 2\frac{3}{4} \times \frac{1}{8}$ in.

533 N fulvostrigosa Sacc (from the tawny strigose stem)

P hemispherical, subwrinkled, grey *St* furfuraceo-squamulose, reddish *G* adnate, grey

Woods Sept $\frac{3}{4} \times \frac{1}{2} \times \frac{1}{8}$ in

534 N piseledora Gill (from its fishy odour, *piscis*, a fish, *odor*, a smell) *a b c*

P campanulate, velvety, umbonate, tawny-cinnamon, salmon-brownish or dark brown *St* rarely with a rudimentary *A*, chestnut-brown or black *G* adnexed, toothed, pale yellowish-tawny, then flesh-colour or dull salmon *Flesh* warm brown, dark at base of stem

Odour strong of rotten fish, varying to cucumber Woods, amongst decayed leaves, on sticks, frequent Oct $1\frac{1}{2} \times 2\frac{1}{2} \times \frac{1}{2}$ in This may be only a form of 709 See 239, 535 and 538 Spores may possibly vary white, salmon and brown

535 N nigripes Gill (from the black stem *niger*, black, *pis*, a foot) *a b*

P hemispherical, floccose, fuscous or umber *St* equal, twisted, somewhat wavy, hollow *G* adnexed, yellow-flesh-colour or salmon

Odour as in 534 Swamps Nov $1\frac{3}{4} \times 3\frac{1}{2} \times \frac{1}{2}$ in Perhaps a form of 534

536 N rufocarnea Sacc (from its colour, *rufus*, reddish, *caro*, flesh) *a b c*

P hemispherical, subumbilicate, red-brown *St* minutely fibrillose, pale rufous *G* adnate, rose-colour

Taste somewhat bitter Grassy heaths, frequent Sept $1\frac{1}{2} \times 2 \times \frac{1}{2}$ in

537 N ieterina Qué! (from its colour *Gr ikteros*, jaundice) *a b*

P hemispherical, sometimes papillate, slightly silky greenish-sulphur or olive-brassy *St* stuffed, colour as *P* or full ochreous *G* adnexed, adnate or decurrent, salmon-white to salmon, saffron in decay *Flesh* sulphur in *P*, white with a buff bark in *St*

Woods, gardens Oct $1\frac{1}{4} \times 1\frac{1}{2} \times \frac{1}{2}$ in

538 N picea Gill (from the more or less pitch-black colour *piceus*, pitch-black) *a b*

P campanulate, papillate, smooth, at first umber marg lighter, shaded slate *St* pruinose, colour as *P*, or dull salmon, blotched and shaded slate *G* ascending, emarginate, flesh-colour

Odour of decaying fish and cucumber Grassy places, gardens $1\frac{1}{4} \times 2\frac{1}{2} \times \frac{1}{2}$ in Perhaps the same as 534, 535 and 709

539 N infula Gill (perhaps from the lustrous gills, at first dazzling white then rose, *infula*, a fillet or ornament) *a b*

P plane, papillate, fawn or smoky when damp, ochreous-tan when dry *St* smooth, colour as *P* or grey-brown *G* varied in attachment

Odour none Lawns, woods, burnt ground Sept-Oct $1 \times 2\frac{1}{2} \times \frac{1}{2}$ in

- 540 *N verecunda* Gill (from its appearance, *verecundus*, modest) *a*
P convex, umbonate, watery-reddish *St* faintly ochreous
G adnate, salmon-white *Spores* reddish
 Densely gregarious or in troops Amongst short grass Sept $\frac{3}{4} \times \frac{7}{8} \times \frac{1}{8}$ in
- 541 *N cœlestina* Gill (from the colour of the pileus, sometimes azure, *cœlum*, the sky) *a*
P convex, umbonate, pale slate *St* colour as *P* *G* adnate, salmon-grey or hoary-white *Spores* faintly rose
 Woods, pine, on wood, rotten oak Oct $1\frac{1}{2} \times 2\frac{1}{2} \times \frac{1}{8}$ in
- 541a *N exilis* Quel (*exilis*, small)
P membranous, conical, expanded, glabrous, striate, livid grey to lilac, mid papillose, darker *St* hollow, glabrous, tough, apex naked, greyish-green *G* adnexed, subcrowded, whitish with a tinge of pink
 Amongst grass, leaves, etc, under beeches, pines, in swamps $\frac{3}{8} \times 3 \times \frac{1}{4}$ in
 Allied to 526 but more slender and delicate
- 542 *N RUBIDA* Sacc (from its frequent reddish tinge) *a b c*
P convex, subumbilicate, greyish or faintly ruddy *St* attenuate below, colour as *P* or paler *G* adnate, rose
 Odour of new meal Amongst grass in a conservatory Mar–Nov $\frac{1}{2} \times \frac{1}{2} \times \frac{1}{8}$ in
- 543 *N RHODOSPORA* Sacc & D Sacc (from the rose-coloured spores) *a b c*
P convex, sooty-fibrillose or rufescent-pilose *St* subbulbous, white *G* sinuate or free, salmon or rose
 On earth and wooden borders in stoves May–Sept $1 \times 1\frac{1}{4} \times \frac{1}{8}$ in

XIX ECCILIA Quel

(From the hollowed out or depressed pileus, Gr *ekkoiloo*, to hollow out)

Veil represented by pruina, fibrillæ or dot-like scales *Hymenophore* confluent with but heterogeneous from the cartilaginous stem

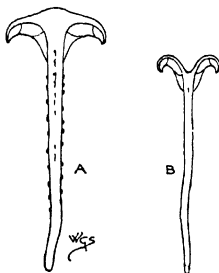


Fig 28 —A, section of *Eccilia atropuncta* Gill
 B, section of *E. acus* Sacc Natural size

Pileus somewhat membranous, margin at first incurved, umbilicate, except 548 *Stem* central, simple, fistulose, stuffed in 550 *Gills* decurrent, not separating from their attachment to the stem (as in *Nolanea*) *Spores* smooth or warted, salmon or rose-colour (Fig 28)

Most of the species grow on the ground, one grows on rotten wood and on walls, another amongst leaves

Eccalia agrees in structure with *Omphalia* and *Tubaria*

Species 544—552

544 *E parkensis* Quel (from its being first noted in the King's park, Upsala) *a c*

P plano-convex, fuscous or blackish, not pale when dry marg substrate *St* attenuate downwards, not dotted, fuscous *G* dull flesh-colour

Grassy places July–Aug $\frac{1}{2} \times 1\frac{1}{2} \times \frac{1}{8}$ in

545 *E carneogrisea* Gill (from the colour of the pileus, *caro*, flesh, *griseus*, grey) *a b*

P plane, marg striate *St* colour as *P* *G* distant, rosy, edge darker

Gregarious Amongst fir leaves, grass Aug–Oct $1\frac{1}{2} \times 1\frac{1}{2} \times \frac{1}{8}$ in

545a *E Smithii* W G Sm, *Agaricus Smithii* Mass (after Worthington George Smith) *a b*

P soon plane, orbicular, umbilicate, even, atomate, yellowish- or buff-white marg somewhat undulate, becoming salmon-striate *St* equal or slightly attenuate upwards, surface undulate, fibrillose salmon, paler above, white downy below *G* broadly adnato-decurrent, salmon-rose *Flesh* somewhat thick except at marg, pale salmon-white

On the ground Oct $1\frac{1}{2} \times 2\frac{1}{2} \times \frac{1}{2}$ in Differs from 512 in the plane pileus, coloured stem, different spores, etc

546 *E griseorubella* Quel (from the reddish grey pileus) *a*

P hygrophanous, plane, brown or grey-brown marg striate *St* smooth, colour as *P* *G* subdistant, flesh-colour

Gregarious Suspected poisonous Inodorous On earth and wood Autumn $1\frac{1}{2} \times 2 \times \frac{1}{8}$ in

547 *E atrides* Quel (*ater*, black) *a*

P plane, fuscous, black-streaked, becoming pale marg striate *St* pallid, black-dotted upwards *G* distant, slightly serrulate, pallid with a black edge

Gregarious Woods, moist places Autumn $1\frac{1}{2} \times 1\frac{1}{2} \times \frac{1}{8}$ in Perhaps a form of 520

548 *E atropuncta* Gill (from the black-dotted stem, *ater*, black, *punctum*, a dot) *a b c*

P convex, pale ashy or dull umber, marg lighter *St* umber, dark or pale, black-punctato-scaly *G* distant, ashy flesh-colour

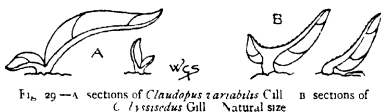
Taste disagreeable On the ground amongst moss Sept–Oct $\frac{1}{2} \times 1\frac{1}{2} \times \frac{1}{8}$ in

- 549 E nigrella** Gill (from the blackish pileus, *niger*, black) *a b*
P smooth, deep umber *St* glaucous, pale salmon-brown, not black-punctate *G* flesh-colour or subashy, not serrulate or with a black edge
 Sometimes cæspitose Pastures Autumn $\frac{1}{2} \times 2 \times \frac{1}{8}$ in
- 550 E rhodocylix** Gill (from the resemblance of the pileus to a rose-coloured cup, Gr *rhodon*, a rose, *lylix*, a cup) *a b*
P convex, fuscous, grey or tan, marg striate when moist *St* stuffed, ashy, tan, or white *G* very distant, flesh-colour
 Rotten wood, stumps, alder, wall tops Sept $1\frac{1}{2} \times 1 \times \frac{1}{8}$ in In the young state when the gills are white this resembles 386
- 551 E ilo-cultus** Sacc (from its likeness to a small flower) *a b*
P slightly irregular, pruinose-crystalline pink-tan, mid dark brown *St* pruinose or innately fibrillose, pinkish-tan, dark at base *G* slightly wavy, bright rose
 In conservatories, on the ground and on tree fern stems June $\frac{5}{8} \times \frac{3}{4} \times \frac{1}{8}$ in
- 552 E acus** Sacc (from the needle-like stem *acus*, a needle) *a b*
P deeply umbilicate pruinose, white marg incurved, striate *St* smooth, white *G* thick, distant, deeply decurrent, rose
 Coco nut fibre in conservatories Aug $\frac{1}{2} \times 1\frac{1}{2} \times \frac{1}{2}$ in

XX CLAUDOPUS Gill

(From its dwarfed stem, *claudus*, lame, Gr *pous*, a foot)

Vul represented by tomentum or down *Hymenophore* confluent and homogeneous with the fleshy stem when the latter is present
Pileus excentric, lateral or resupinate *Stem*, when present, lateral,



simple, without cartilaginous bark *Gills* reaching to the excentric stem or axis *Spores* smooth or warted, rubiginous (Fig 29)

The species are small They grow on wood or on the ground

Claudopus agrees in structure and habit with *Phurotus* and *Crepidotus* Species 553—555

- 553 C variabilis** Gill (from its variability) *a b c*
P resupinate, then reflexed, white-tomentose *St* minute, excentric or none *G* salmon-pink or salmon-brownish
 Sticks, stumps, leaves, oak, beech, maple, bramble, apple, sedge, moss, living chickweed, common May-Mar Diam $1\frac{1}{2}$ in Sometimes sterile with white gills Sometimes $\frac{1}{8}$ in or less in diam

554. *C. depluens* Gill (from its watery substance, *depluo*, to rain)
a b c

P resupinate, then reflexed, hygrophanous, rufescent-hoary
St small, lateral, rarely central, or none, white villous *G*
 adnato-decurrent, rufescent

On the ground, amongst moss, sawdust, wood ashes, sometimes in stoves,
 rare Oct Diam 1 in

555 *C. byssisedus* Gill (from the fibrils on the stem, *byssus*, fine
 linen thread, *sedeo*, to sit) *a b c*

P resupinate, then horizontal and reniform, villous, pale grey
St small, white-villous *G* adnato-decurrent, salmon

On the ground, rotten wood, beech, rare Sept-Oct Diam $\frac{1}{8}$ in

SERIES III DERMINI Fr

(From the membrane of the pileus, Gr *derma*, a skin)

Spores various shades of reddish-brown, brown, red, yellowish-
 brown or dull yellow Genera XXI - XXXI

XXI ACETABULARIA Mass

(From the cup-like volva, *acetabulum*, a vinegar-cup)

Vol universal, forming a volva *Hymenophore* distinct from the
 fleshy stem *Stem* central, simple, volvate *Gills* adnexed *Spores*
 pallid-tawny or brownish

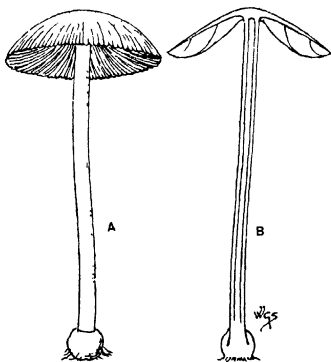


Fig 30 — *Acetabularia acetabulosa* Mass Natural size
 A, perfect plant B, plant in section

Acetabularia agrees in structure with *Amanitopsis*, *Volvaria* and
Chitonia

Saccardo (*Sylloge Fungorum*, vol v p 761) makes Berkeley's *Acetabularia* analogous with Gillet's *Locellina*. The two genera are quite distinct, *Locellina* is not represented in Britain

Locellina

Pileus smooth, glabrous

Gills broadly adnate

Stem fibrillose-annulate

Acetabularia

Pileus sulcate, white-furfuraceous

Gills adnexo-free

Stem simple

556 A acetabulosa Mass (from the cup-like volva, *acetabulum*, a vinegar-cup) *a b*

P convex, salmon, mid sienna-reddish, white-furfuraceous, marg striate, denticulate, splitting *St* hollow, whitish, white-mealy above *G* adnexed, subdistant, glandular, pale brownish-salmon with a lighter edge

In the Thames at Millbank May $1\frac{3}{8} \times 2 \times \frac{1}{8}$ in The glands on the gills, as illustrated by Sowerby, may be cystidia

XXII TOGARIA W G Sm

(From the annulus, like a cloak, well seen in the young state of **557**, *toga*, a Roman garment)

Vol universal, manifest in the membranous annulus and in the

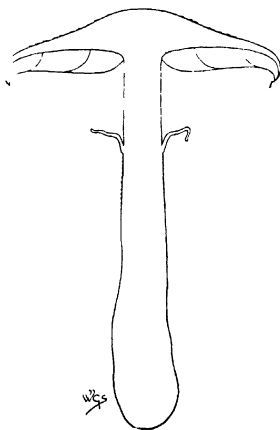


Fig 31 —Section of *Togaria aurea* W G Sm
One quarter natural size

squamules, fibrillæ and flock of the pileus, the squamules, etc being sometimes appendiculate at the margin *Hymenophore* not

truly distinct from the fleshy stem, except in 564, although in the majority of cases it is nearly so *Pileus* fleshy *Stem* central, fleshy, annulate *Gills* adnato-decurrent, adnate, adnexed, or rounded-free *Spores* ferruginous (Fig 31)

All the species grow on the ground

Togaria agrees in nearly all points of structure and habit with *Lepiota*, *Annularia* and *Psalliota*

In 564 the gills are normally rounded-free, and in several other species the gills are frequently adnexed In *Lepiota* one species—47—has adnate gills and several others have approximate gills, in *Psalliota* several species have approximate gills Species 557—566

a Euderminea *Spores* ferruginous 557—564

b Phaotæ *Spores* fuscous-ferruginous 565, 566

a Euderminea

557 *T aurea* W G Sm, *Agaricus aureus* Mattusch (from its golden colour, *aurum*, gold) *a b c*

P convex, velvety, squamulose, marg partially appendiculate with V *St* solid, striate and scurfy below A *A* superior, large *G* adnato-decurrent to adnexo-free ochreous then sienna *Flesh* whitish-sulphur above, golden-sienna below

Subcaespitose Plantations, cedar, rare Aug-Nov $10 \times 11\frac{1}{2} \times 1\frac{1}{2}$ in
Var *Vahli* W G Sm (*Agaricus Vahli* Schum) *P* even, smooth Var
herefordensis W G Sm (*Agaricus aureus* Mattusch var *herefordensis*
Kenny) *St* granulate, tuberculate

558 *T caperata* W G Sm, *Agaricus caperatus* Pers (from the wrinkled pileus, *caper*, to wrinkle) *a b c*

P convex, white-floccose on a deep yellow or buff-tan ground, marg deeply wrinkled or lobed *St* solid, white shaded dull salmon white-squamulose above A *A* median somewhat large *G* adnate or adnexed, dull ochreous or clay-cinnamon, sometimes colour of iron-oxide

Solitary Woods Aug-Dec $4\frac{1}{2} \times 4\frac{1}{2} \times \frac{1}{2}$ in Sometimes there is an obscure volva Pale forms resemble 789

559 *T terrigena* W G Sm, *Agaricus terrigenus* Fr (from its habitat, *terra*, the earth, *gigno*, to bear) *a*

P convex, silky-fibrillose, yellowish, marg partially appendiculate with V *St* colour as *P*, clad with ferruginous-yellow warts *A* apical *G* adnate with a decurrent tooth, yellowish then brownish

Woods, damp places, old earthy stumps Aug-Nov $2\frac{3}{4} \times 2\frac{3}{4} \times \frac{1}{4}$ in
Perhaps 589 is a form of this Small forms must not be confounded with 1085

560 *T erebia* W G Sm, *Agaricus crebrius* Fr (Gr *erebos* dark) *a b c*

P convex, at first viscid, dark ferruginous brown or umber, becoming paler, marg often streaky-wrinkled *St* hollow, smooth, pale salmon-brownish, darker at base and white above,

white squamulose below *A* apical, membranous, white *G* adnate, sometimes with a decurrent tooth, somewhat pale livid-brown *Flesh* pale brownish

Gregarious Taste fungoid, insipid, odour slight or obsolete Woods, shrubberies, grassy places, under birches Aug-Oct $2 \times 2\frac{1}{2} \times \frac{1}{2}$ in Not unlike some forms of 792 Must not be confounded with 69a

561 **T ombrophila** W G Sm, *Agaricus ombrophilus* Fr (Gr *ombros*, rain, *philos*, loving) *a b*

P convex, gibbous, smooth, clay-colour, sometimes shaded ferruginous, marg with traces of the white *V* *St* hollow, paler than *P* or almost white *A* distant, white *G* adnate with a tooth or adfixed, pallid brownish then ferruginous-brown

Grassy places after heavy rain Oct $2\frac{1}{2} \times 2\frac{1}{2} \times 1\frac{5}{8}$ in Var *brunneola* W G Sm (*Agaricus ombrophilus* var *brunneolus* Fr) *P* brown $1\frac{1}{2} \times 1\frac{1}{2}$ in

562 **T molliscorium** W G Sm, *Agaricus molliscorium* Cooke & Mass (from the skin of the pileus, *molliscorium*, with a soft, leather-like skin) *a b*

P convex, smooth, polished, dry subumbonate, tawny yellow, mid ochreous or sienna *St* hollow, equal, pale ochreous, silky fibrillose, broken up into minute sq above *A* *A* deciduous, brownish *G* adnate or uncinat, crowded, ferruginous

Taste and odour none June $2\frac{1}{2} \times 2\frac{1}{2} \times \frac{1}{2}$ in

563 **T togularis** W G Sm, *Agaricus togularis* Bull (from the annulus, like a little cloak, *togula*) *a b*

P convex, pallid ochreous, mid sienna or umber *St* hollow, whitish, yellowish or brownish *G* adnate or adnexed, yellow then pallid ferruginous *Flesh* colour of exterior

In troops Grassy woodlands, gardens, wood yards, amongst chips rare May-Nov $2\frac{1}{2} \times 3\frac{1}{2} \times 1\frac{1}{2}$ in

564 **T blattaria** W G Sm, *Agaricus blattarius* Fr (from the colour of the pileus, *blatta*, a cockroach) *a*

P flat, subumbonate, ferruginous, mid darker *St* fistulose, whitish, brownish at base *A* white *G* rounded-free or slightly adnexed, watery cinnamon

Gardens and cultivated places Autumn $1\frac{1}{2} \times 1\frac{1}{2} \times \frac{1}{2}$ in I like an annulate *Galera*

b Phæta

565 **T dura** W G Sm, *Agaricus durus* Bolt (*durus*, hard) *a b c*

P convexo-plane, kid-leather-like, becoming cracked, tawny, pale ochreous or almost white marg partially appendiculate with *V* *St* paler than *P*, sometimes with root-like fibres at base *A* ample, fugitive *G* adnate with a decurrent tooth, livid brown to deep ferruginous

Possibly poisonous Fields, gardens, uncommon May-Oct $2\frac{1}{2} \times 3\frac{1}{2} \times \frac{3}{8}$ in Sometimes gathered for 792

566 T præcox W G Sm, *Agaricus præcox* Pers (*præcox*, early)
a b c

P convex, obtuse, smooth, whitish or whitish-ochre *St* hollow above, mealy-floccose, white, sometimes with root-like fibres at base *A* ample, fugitive, white *G* rounded-adnexed or subadnate, at length fuscous

Said to be edible Taste rank, odour strong, not unpleasant Gardens pastures, road sides common May-Oct $3 \times 4 \times \frac{3}{8}$ in Sometimes wholly whitish May not be distinct from last Sometimes gathered for 792

566a T sphaleromorpha W G Sm, *Agaricus sphaleromorphus* Bull (from the difficulty of distinguishing this from the two last species, Gr *sphaleros*, delusive, *morphe*, form) *a b*

P globose, convex, plane, obtuse, even, smooth, expanded, white or pale buff to ochre *St* stuffed, then partially hollow, in-crassate and villose below, when young clavate, silky, pale buff to yellowish *A* entire, median to distant, ample, membranous *G* arcuato-or adnato- to sinuato-decurrent, yellowish white, becoming ochre, ferruginous-tan or brownish

Leaf soil Oct $4\frac{1}{2} \times 3\frac{3}{8} \times \frac{1}{2}$ in Must not be confounded with 565 and 566

XXIII PLUTEOLUS Gill

(Diminutive of *Pluteus*, Genus XIV)

Vel indicated by gluten, fibrillæ and meal *Hymenophore* distinct from the fleshy stem *Pileus* conical or campanulate then expanded,

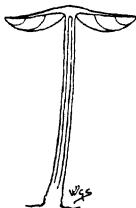


Fig 32 —Section of *Pluteolus reticulatus* Gill
— One half natural size

slightly fleshy viscid, margin striate, at first straight and adpressed to the stem *Stem* fistulose, simple *Spores* ferruginous or saffron *Gills* rounded-free (Fig 32)

The species grow on dead wood, rotten sticks, etc

Pluteolus agrees in structure with *Hiatalula*, *Pluteus*, and *Pilosace*

Species 567, 568

567. *P. reticulatus* Gill (from the network of veins on the pileus, *rete*, a net) *a b*

P expanded, subumbonate, violaceous, fuscous or greyish, mid faintly ochreous *St* fibrillose, whitish *G* dull cinnamon *Spores* dark ferruginous

Dead wood, rare Sept $1\frac{1}{2} \times 2\frac{1}{2} \times \frac{1}{2}$ in

568 *P. aleuriatus* Karst (from the flour-dusted appearance of the stem, Gr *aleuron*, flour) *a*

P convexo-plane, bluish-grey, rose-colour or tan, mid darker *G* saffron-ochraceous

Rotten sticks Oct $1 \times 1 \times \frac{1}{8}$ in

XXIV PHOLIOTA Quel

(From the scaly pileus, Gr *pholis*, a scale)

Veil partial in the form of an annulus, or universal as scales and gluten on the pileus and stem *Hymenophore* confluent and homogeneous with the fleshy stem *Pilus* fleshy, viscid, dry, naked or

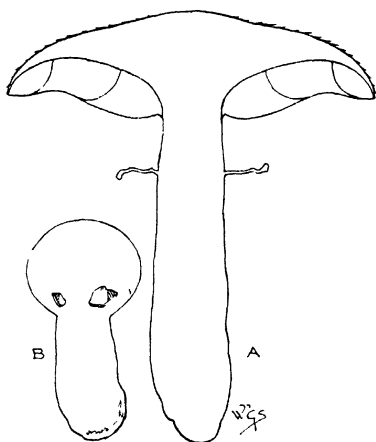


Fig 3, — *Pholiota spectabilis* Gill One half natural size
A plant in section B young state

scaly *Stem* central, annulate *Annulus* persistent, membranous, spreading, not arachnoid or fibrillose *Gills* usually adnate, with or without a decurrent tooth, variously attached, at first pale or tawny, then usually becoming dark fuscous, but not the bright

ferruginous colour of *Cortinarius* Spores sepia-brown, bright yellowish-brown, or light red (Fig 33)

All the species except 596 and 597 grow on trees, stumps and branches

Phohota agrees in structure and habit with *Armillaria* and *Stropharia*

Phohota must not be confounded with *Cortinarius*, where all the species are terrestrial, have an arachnoid veil and spores the colour of iron-oxide

Species 569—597

TRUNCIGLÆ Mostly cæspitose, growing on trunks and stumps

a Ægrotinæ Pileus naked, not scaly, but here and there rimoso-rivulose Gills pallid, then rufescent, becoming fuscous 569—574

b Squamosæ Pileus scaly, not hygrophanous Gills changing colour

Gills pallid, then fuscous, olivaceous, clay-coloured, not purely ferruginous 575—579

Gills yellow, then purely ferruginous or tawny 580—586

c Hygrophana Gills cinnamon, not at first light yellow Hygrophanous 587—595

MUSCIGLÆ Hygrophanous, resembling annulate *Galeria* mostly growing on moss 596, 597

TRUNCIGLÆ

a Ægrotinæ

569 *P radicata* Quel (from the rooting stem) *a b c*

P convexo-plane, viscid, pale tan-brownish, clouded darker *St* spongy-solid, enlarged below and fusiform rooting, whitish-tan *A* distant, fugitive *G* adnato-toothed or rounded

Solitary or gregarious, rarely cæspitose Taste pleasant or obsolete, odour strong, like prussic acid or sweetish, not unpleasant Woods, about stumps, on wood, frequent Aug—Oct $4\frac{1}{2} \times 10\frac{1}{4} \times \frac{1}{8}$ in *P* some times 6 in in diam

570. *P pudica* Gill (from its modest colour, *pudicus*, modest) *a b c*

P convex, moist, hygrophanous, rivuloso-wrinkled, tan, mid sienna *St* solid, firm, rigid, paler than *P* *A* persistent *G* adnato-rounded, colour as *St* *Flesh* pallid white

Single or cæspitose Odour strong, penetrating, disagreeable Stumps, elder, elm, rarely on lawns, downs May Nov $2\frac{1}{2} \times 2\frac{1}{2} \times \frac{1}{8}$ in Some times mistaken for 792

571 *P leochroma* Sacc (from its lion-tawny colour, Gr *leon*, a lion, *chroma*, colour) *a b*

P convex, then depressed, mid yellowish-white or pale sienna, marg pale *St* solid, whitish above, brown below *A* per-

sistent *G* adnato-rounded, dark cinnamon *Flesh* pale livid-brownish, darker in *St*

! *Cæspitose* Said to be edible Stumps, elm, fir, larch July-Sept $3\frac{1}{2} \times 4\frac{1}{2} \times \frac{1}{2}$ in Perhaps a form of 570

572 P capistrata Sacc (from a fancied resemblance in the annulus to a halter, *capistrum*) *a b*

P flat, subviscid, tan, mid pale sienna marg rivuloso-wrinkled

St stuffed, squamulose, tan-white *A* large, inrolled, persistent

G decurrent or rounded, thin tan-white

Cæspitose Said to be edible Taste varying pleasant to unpleasant Stumps elm Aug-Nov $4 \times 4 \times \frac{1}{2}$ in Intermediate forms occur between this and 570 and 571

573 P ægerita Quel (from its frequent habitat, poplar trunks, Gr *angiros*, the black poplar) *a b*

P convex, rivuloso-wrinkled, pale buff to bright full tawny

St stuffed, sometimes substrate from the decurrent base of *G*, tan-white, white-mealy above *A* superior, swollen *G* serrulate, adnate with a tooth, fuscous

Cæspitose Odour pleasant Stumps, *Populus fasciata*, willow, ash, elm July-Sept $4 \times 5\frac{1}{2} \times \frac{1}{2}$ in The 'Pioppini' of Italy

574 P luxurians Gill (from its frequent luxuriant growth) *a b*

P flat silky, squamulose, yellowish-white then rufous *St* stuffed,

subsquamulose, colour as *P* *A* apical, fugacious *G* adnate with a tooth, fuscous

Cæspitose Stumps, elm, poplar, oak, ash July $3 \times 2\frac{1}{2} \times \frac{3}{8}$ in

b Squamosæ

575 P comosa Quel (from the hairy scales of the pileus *coma*, a hair) *a b*

P convex obtuse, viscid, tawny sc paler, marg appendiculate with V *St* solid, bulbous, fibrillose, brassy-white *A* superior, subsistent *G* adnate or adnato-decurrent, fuscous

Subcæspitose Odour faint Stumps, beech, poplar, birch rare Oct-Nov $7 \times 4\frac{1}{2} \times 1\frac{1}{2}$ in

576 P heteroclita Quel (from the curved stem, Gr *heteros*, other, *klino*, to lean) *a b c*

P convex obtuse, viscid when old and wet, whitish yellowish or brownish, marg appendiculate with V *St* solid bulbous, fibrillose, whitish-brown at base *G* adnate or rounded-adnexed

Solitary Odour strong and pungent of horse radish Trunks, birch, poplar, small examples on chips Sept-Nov $5\frac{1}{2} \times 3\frac{1}{2} \times 1$ in

577 P aurivella Quel (from a fancied resemblance in the pileus to a golden fleece *aurum*, gold, *velus*, fleece) *a b c*

P convex, subumbonate, sulphur or deep ferruginous yellow

St stuffed, fibrillose, colour as *P* *A* superior *G* adnate with a tooth or sinuato-adnexed, brown

Cæspitose or solitary Odour faint Trunks, ash, willow, beech, uncommon Sept-Nov $4\frac{1}{2} \times 4 \times \frac{1}{2}$ in

578 P squarrosa Qué! (from the rough-scaly pileus, *squarrosus*, rough) *a b c*

P convex, gibbous, dry, ochreous-sienna, marg appendiculate with V *St* stuffed, attenuate downwards, brown-squarrose below A *G* adnate with a decurrent tooth, olivaceous-ferruginous *Flesh* light yellow

Cæspitose, sometimes in fascicles of 50 or more Sometimes eaten Odour strong and nauseous of putrid cheese or none On or near stumps, beech, oak, ash, laburnum, acacia, apple, plum common July-Dec $3\frac{1}{2} \times 4\frac{1}{2} \times \frac{5}{8}$ in Sometimes twice the size of type Var *verruculosa* Gill *P* glutinous when wet, maple Var *reflexa* Gill *P* umbonate Var *Mulleri* Gill small, wholly sulphur

579 P subsquarrosa Qué! (from the pileus, less scaly than 578) *a c*

P plane, viscid, brown, marg appendiculate with V *St* subsquarrose below A, yellow-ferruginous *G* adnate with a decurrent tooth, or almost emarginato-free, pale brown *Flesh* pale ochreous-brownish

Subcæspitose Odour almost obsolete Trunks, fir, and on the ground Sept $2 \times 2\frac{5}{8} \times \frac{1}{8}$ in

579a P grandis Rea (*grandis*, large) *b*

P convex, then expanded, broadly gibbous, dry, fulvous-tawny, covered with small innate deeply tawny sq at the circ revolute at mid *St* solid, fusiform slightly squamulose and tawny below the distant, almost fugacious A, deeply striate above *G* broad, attenuate in front deeply sinuato-decurrent behind somewhat crowded, pallid, then fuscous *Flesh* light yellow, ferruginous in *St*

Cæspitose Taste and odour very pleasant Trunks, ash, oak Oct $9 \times 8\frac{1}{2} \times 2\frac{1}{2}$ in

580 P spectabilis Gill (*spectabilis*, notable) *a b c*

P convex, obtuse, dry, rich sienna-yellow *St* solid, squamulose or smooth, ventricose, rich yellow *G* adnate with a tooth or subdecurrent *Flesh* sulphur

Cæspitose Taste, bitter aromatic Sumps, oak beech, hornbeam, hawthorn, frequent Aug-Dec $5\frac{1}{2} \times 5\frac{1}{2} \times 1\frac{1}{8}$ in Stem sometimes 9 in Resembles 1049 in appearance

581 P adiposa Qué! (from the pileus, as if covered with fat) *a b c*

P plane, subdepressed, very glutinous, sulphur sc floccose, ferruginous mid deep sienna-yellow, marg appendiculate with V *St* squarrose, viscid, colour as *P* *A* small floccose *G* adnato-rounded

Cæspitose Trunks, beech, ash, plum, silver fir, birch, frequent July-Oct $7 \times 5 \times \frac{1}{4}$ in

581a P lucifera Qué! (from the flame-like colours *lua*, light, *fero*, to carry) *a*

P fleshy, convex, almost plane becoming umbonate, viscid, covered at first with darker adpressed sc which soon disappear, yellow, or orange with sulphur marg *St* stuffed to hollow,

sometimes solid, equal, somewhat squamulose, becoming smooth, whitish above, brown below without and within *A* distant *G* emarginato-adfixed, narrow, crenulate, yellow-white, luminous yellow, then olive or ferruginous

Trunks, branches, straw, almost terrestrial Odour strong Autumn $2\frac{1}{2} \times 2 \times \frac{3}{8}$ in

582 P flammans Karst (from its fiery colours) *a b c*

P convex, subumbonate, yellow or orange, sc sulphur *St* squarrose, sulphur or yellow *A* superior *G* sulphur, then brown *Flesh* sulphur

Gregarious or in clusters Odour none Woods, pine, pine leaves, dead pine branches Julv-Oct $2 \times 2\frac{1}{2} \times \frac{1}{8}$ in Mycelium often deep orange

583 P Junonia Karst (from its beauty, belonging to Juno) *a b*

P convex-plane, subumbonate, yellow to deep sienna-orange *St* even, solid, yellow above, sienna below *A* distant *G* adnate

Usually solitary Trunks Oct $3\frac{1}{2} \times 3\frac{1}{2} \times \frac{3}{8}$ in Must not be confounded with 695

584 P tuberculosa Gill (from the bulbous base of the stem) *a b*

P convexo-plane, obtuse, tawny or pale sulphur, mid brown *St* hollow, subbulbous, attenuato-rooting, fibrilloso-scaly, light yellow or ochre *A* fugitive *G* adnate or emarginate, serrulate

Solitary or caespitose Trunks, birch, sawdust Oct $2 \times 1\frac{1}{2} \times \frac{1}{4}$ in

585 P curvipes Quel (from the frequently curved stem, *curva*, a curve, *pis*, a foot) *a b c*

P expanded, subumbonate, tawny or orange, marg at first appendiculate with white V *St* fistulose, fibrillose, light yellow *A* floccose, fugitive *G* adnate with a white edge *Flesh* light yellow

Gregarious, subcaespitose Taste somewhat pleasant insipid, not strongly scented Trunks, sawdust, deal boards in greenhouses Oct $2\frac{1}{2} \times 1\frac{1}{2} \times \frac{1}{4}$ in

586 P cruentata Sacc (from the blood-coloured scales of the pileus, *cruentatus*, blood-stained) *a b*

P convex, obtuse, yellow, sc crimson-brown *St* solid, attenuato-rooting subsquamulose below *A*, colour as *P* *A* fibrillose *G* adnate or emarginate, brown, somewhat olive *Flesh* pale yellow

Taste insipid Trunks, oak, burn ground Aug-Sept $1\frac{1}{2} \times 1\frac{1}{2} \times \frac{1}{4}$ in

c Hygrophanae

587 P Paxillus Gill (from its resemblance to 1181, *Paxillus involutus* Fr) *a*

P expanded, subumbonate, ochreous-buff, mid darker *St* solid, smooth, colour as *P*, brown at base *A* narrow, spreading *G* subdecurent, crowded

Trunks Autumn $6 \times 6\frac{1}{2} \times \frac{3}{4}$ in Sometimes wholly cinnamon

- 588. P dissimulans** Sacc (from its appearing like, but differing from, **560**, *dissimulo*, to dissemble) *a c*

P convex, subumbonate, buff-brown, becoming whitish *St* fistulose with transverse dissepiments, attenuate upwards, white
A fragile *G* adnexed or adnate with a tooth, clay-brown

Sticks, hawthorn, sloe Oct–Nov $1\frac{1}{2} \times 1\frac{1}{2} \times \frac{3}{8}$ in

- 589 P Cookei** Sacc (after Dr M C Cooke) *a b c*

P convex, obtuse, viscid, dull yellowish, sc adpressed, faintly brownish *St* solid, whitish above, fibrillose and yellowish-brown at base *A* narrow *G* adnate

Damp places, amongst grass, stumps Sept–Oct $2\frac{1}{2} \times 2\frac{1}{4} \times \frac{1}{4}$ in Perhaps the same as **559**

- 590 P sublutea** Karst (*subluteus*, yellowish) *a c*

P flat, subumbonate, squamulose, dull brownish-yellow, sc darker *St* stuffed, smooth, attenuate upwards, paler than *P*
A narrow, spreading *G* decurrent, crowded

Subcaespitose Grassy ground Oct $2\frac{1}{2} \times 4\frac{1}{4} \times \frac{1}{4}$ in

- 591 P confragosa** Karst (*confragosus*, rough) *a b*

P convexo-plane, obtuse, densely furfuraceous, red, cinnamon-rufous or umber, tawny when dry, flocci fugitive, white
St hollow, shining pale warm-umber flocci fugitive *G* adnate or subdecurrent

Somewhat caespitose Fallen elm Oct $1\frac{1}{2} \times 2 \times 1\frac{1}{8}$ in Resembles **917**

- 592 P mutabilis** Quél (*mutabilis*, changeable) *a b c*

P convex, obtusely umbonate, cinnamon, pale when dry, or mid deep cinnamon, with marg straw colour, sometimes appendiculate with V *St* pale above, cinnamon below, subsquarrose below *A* narrow, spreading, fugitive *G* adnato-decurrent, crowded

Sometimes eaten, taste of gingerbread Stumps, lime, ash, sawdust April–Dec $2 \times 3\frac{3}{4} \times \frac{1}{2}$ in

- 593 P marginata** Quél (from the striate margin of the pileus) *a b c*

P expanded, subumbonate, honey-colour, tan when dry *St* fistulose, fibrillose, paler than *P* *A* spreading, fugitive
G adnate or somewhat rounded

Solitary, gregarious, caespitose Woods fir, beech, pine, chips, frequent Sept–Dec $1\frac{1}{2} \times 2 \times \frac{1}{8}$ in

- 594 P mustelina** Quél (from its colour, *mustella*, a weasel) *a*

P convex, dry, yellow or reddish *St* fistulose, whitish *A* superior, reflexed *G* adnate

Solitary, subgregarious Woods, pine, stumps Sept $\frac{5}{8} \times \frac{3}{4} \times \frac{1}{8}$ in

- 595 P unicolor** Gill (from its being wholly of one colour) *a c*
Bay-brown then ochreous

P convex, subumbonate *St* fistulose, somewhat smooth *G* adnexed, adnate or subdecurrent

Subgregarious, subcaespitose Trunks, branches, larch Sept–Nov $1\frac{1}{2} \times 2\frac{1}{2} \times \frac{1}{2}$ in

MUSCIGENÆ

596 *P. pumila* Gill (*pumilus*, diminutive) *a b c*

P hemispherical, smooth, ochreous, marg substrate *St* fistulose, smooth, colour as *P* or paler, base often darker
A floccose *G* adnate with a tooth, subdistant, pallid-brownish

Solitary, gregarious Moss, walls, earth, sticks, sawdust, firs, common
 Aug-Jan $\frac{3}{4} \times 2\frac{3}{8} \times \frac{1}{8}$ in

597 *P. mycenoides* Quél (from its resemblance in stature to a *Mycena*) *a b c*

P hemispherical, ferruginous, tawny pale or medium, marg striate *St* fistulose, smooth, colour as *P* *A* persistent, white *G* adnate with a decurrent tooth

Amongst moss in damp places, lawns Sept-Oct $\frac{1}{2} \times 1\frac{1}{8} \times \frac{1}{32}$ in Often accompanied by 283

XXV INOCYBE Quél

(From the fibrous pileus, Gr *is, mos*, a fibre, *kube*, a head)

Vul concrete with the cuticle of the pileus, fibrillose or somewhat arachnoid, often appendiculate at the margin of the pileus and sometimes forming an indefinite annulus *Hymenophore* confluent

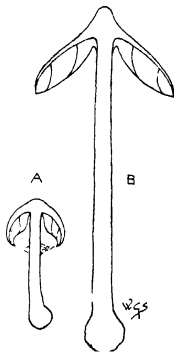


Fig 34 —A, section of *Inocybe scabra*
 Gill B ditto *I. fastigiata* Quél
 One half natural size

and homogeneous with the fleshy stem *Pileus* squarrose, fibrillose or velvety, in a few species becoming smooth or viscid *Stem* central, scaly, fibrillose or smooth, simple or imperfectly squaroso-annulate

Gills usually sinuate, sometimes adnexed, adnate or decurrent, adhering to the hymenophore, except 602 and 621, at first pale, changing colour, but not to fuscous-ferruginous. *Spores* often angular, pale dull tan, brownish or brown (Fig 34)

All the species, except 644, grow on the ground, they are somewhat small, none are edible, and the majority have a somewhat nauseous odour

Inocybe is defined by Fries (*Hymenomycetes Europæi*, p 226) has no genus corresponding wholly with it in structure amongst the white-, pink-, purple- or black-spored groups. Certain of the fibrous-pileated species of *Tricholoma*, *Entoloma* and *Stropharia* might, however, be separated as analogues. *Inocybe* was formerly included in the next genus, *Hebeloma*. Species 598—646

Mr George Massee, in his monograph of the genus (*Annals of Botany*, XVIII (1904), p 459), has rearranged the species in two groups, viz I Spores rough, and II Spores smooth, these groups he has again divided into—A Cystidia present, and B Cystidia absent, with minor distinctions as to a whitish or coloured stem and brownish or olive-tinted gills

a *Squarrosæ* *Pileus* squarrose, somewhat fuscous. *Stem* scaly, smooth above, same colour as pileus, solid except 204

598—607

b *Laccæ* *Pileus* torn into scales or fibres, not split into cracks. *Stem* fibrillose, paler than the pileus. 608—619

c *Rimosæ* *Pileus* longitudinally fibrous, soon cracked, partially adpressed-scaly. *Stem* fibrillose, whitish, slightly tinged with the colour of the pileus. Many become yellow when old. 620—634

d *Velutinæ* *Pileus* not cracked, the cuticle fibrillose woven, becoming even or adpressedly-scaly. *Stem* shining, smooth, whitish, mealy above. 635—642

e *Viscidæ* *Pileus* viscid, even. 643—646

a *Squarrosæ*

598 I *hystrix* Karst (from the scabiness, *hystrix*, a porcupine) a b c

P plane, subgibbous, mouse-colour to brown. *St* attenuate downwards, sc fuscous, brownish or mouse-colour. *G* adnate, fuscous

Woods, beech Oct $3 \times 2\frac{1}{2} \times \frac{3}{8}$ in. Resembling a small 578 in appearance

599 I *relicina* Quel (from the recurved floccose scales of the pileus, *reclinus*, curled backwards) a c

P expanded, obtuse, fuliginous or rufescent livid-brown. *St* slightly attenuate downwards, floccoso-scaly, colour as *P*. *G* adnexed, olivaceous

Odour almost obsolete. Woods, fir, marshy places, amongst *Sphagnum* July—Oct $2\frac{1}{2} \times 3\frac{1}{2} \times \frac{1}{8}$ in

599a I mimica Mass (from its resemblance to **26** as figured in Cooke's Illustrations, p 941)

P campanulate, obtusely umbonate, fibrillose, yellow-brown, covered with large adpressed fibrous slightly darker sc *St* solid, equal, fibrillose, paler than *P* *G* deeply sinuate, broad, yellow-brown

Woods Autumn $3 \times 3 \times \frac{3}{8}$ in

600 I calamistrata Gill (from the curled scales of the pileus, *calamistræ*, a curling iron) *a b c*

P campanulate, fuscous-scaly on a tan ground *St* squarrose, somewhat bulbous, at first pale, then as *P*, tinged with dull blue at base *G* adnexed, ferruginous with a white edge *Flesh* becoming red when cut

Sometimes subcæspitose Odour strong, not unpleasant Woods, pine, by paths and ditch sides, rare Aug-Oct $2 \times 2\frac{1}{2} \times \frac{3}{16}$ in

601 I hirsuta Quel (from the bristly pileus, *hirsutus*, bristly) *a b*

P campanulate, acutely umbonate, mid fuscous or greenish, marg pale tan *St* fibrillose, pale tan above, greenish at base *G* adnexo-ascending, umber with a white edge *Flesh* faintly rose when cut

Odour funter than **600** Woods, beech, damp places, pastures, rare Oct $1\frac{1}{2} \times 2\frac{1}{2} \times \frac{1}{16}$ in

602 I lanuginosa Quel (from the woolly pileus, *lanuginosus*, woolly) *a b c*

P hemispherico-convex, obtuse, umber then yellow *St* squamuloso-fibrillose, whitish-fuscous *G* separating-free, denticulate, pallid clay-colour

Odour faint or none Woods, mixed, near paths, sandy places, near firs July-Nov $1\frac{1}{2} \times 1\frac{1}{4} \times \frac{1}{8}$ in

602a I calospora Quel in Brcs (from the beautiful spores, *Gr kales*, beautiful) *a*

P convex or campanulate, then expanded and umbonate, fibrillose with darker sq at mid, yellowish-brown or tawny-grey, edge paler *St* pale then reddish, or as *P* *G* sinuato-free, tawny-ochre or brownish

Woods, shady places Autumn $1 \times 2\frac{1}{2} \times \frac{1}{8}$ in

603 I dulcamara Quel (from the taste—sweet, becoming bitter, *dulus*, sweet, *amarus*, bitter) *a c*

P campanulato-convex, umbonate, olivaceo-fuscous *St* squamuloso-fibrillose below, paler than *P* *G* adnexed, olivaceous

Gregarious Woods, plantations, fir, mixed Aug-Oct $1\frac{1}{2} \times 1\frac{1}{2} \times \frac{1}{8}$ in

604 I plumosa Quel (from the downy tufts on the pileus, *plumosus*, feathery) *a b*

P hemispherico-convex with squarrose flocci in erect fascicles, mouse-colour or shaded rufous *St* stuffed or hollow, floccoso-

scaly, paler than P or smoky G subadnate, pallid mouse-colour

Odour faint, not unpleasant Woods, pine, moist places, rare Aug
 $1\frac{3}{8} \times 2\frac{3}{8} \times \frac{1}{8}$ in The colours are not unlike those of Series II,
Hyporhodon

- 605 I cincinnata** Quel (from the curved scales of the pileus, *cinnam*us, a curl) *a*

P convexo-plane, usually subumbonate, villosa-scaly, fuscous
St fibrilloso-scaly, fuscous-violaceous or lavender above, brownish below G adnexed, fuscous-violaceous or lavender

Subgregarious Odour none Woods, beech Autumn $1 \times 2 \times \frac{1}{8}$ in
 Compare 618 and 641a

- 606 I hæmaeta** Sacc (from the change of colour to blood-red when broken, Gr *haimaktos*, mingled with blood) *a b*

P plano-convex, floccoso-fibrillose, umber, mid dark, marg pallid *St* scaly-fibrillose, whitish above, dull verdigris below inside and out G adnate, clay-umber *Flesh* crimson in P, greenish-blue below

Subcæspitose Lawns Aug–Oct $1\frac{3}{4} \times 2 \times \frac{1}{4}$ in

- 607 I fasciata** Sacc (from its growing in bundles *fasciatus*, bound together in bundles) *a b*

P convex, obscurely acuto-umbonate, minutely brown-squarrososcaly on a pale ground *St* solid, attenuate below, pallid above, vinous within and without at base G adnato-sinuate, crowded, thin, soft, pallid

Densely cæspitose Taste and odour none Grassy places $3 \times 3\frac{1}{2} \times \frac{1}{8}$ in

b Lacina

- 608 I pyriodora** Quel (from its odour of pears, *pyrus*, a pear, *odor*, a smell) *a b c*

P convex, subumbonate, fuscous to tan-ochreous *St* solid, whitish G adnato-emarginate, fuscous, often olive-shaded, edge whitish *Flesh* becoming pale reddish

Taste none, odour strong, sweet, pleasant of pears, decaying pears, violets, cinnamon, of *Muscari racemosum* Woods, gardens May–Dec
 $2\frac{1}{2} \times 3\frac{1}{2} \times \frac{1}{8}$ in Sometimes *P* and *St* whitish tan, G tan rufescent

- 609 I incarnata** Bres (from the flesh-coloured pileus, *incarnatus*) *a b*

P expanded, broadly umbonate, sometimes tinged with pale orange-scarlet, crimson or purple, marg appendiculate with V *St* solid, base enlarged, colour as P G sinuate, whitish to olive-brownish, often spotted orange, scarlet or crimson, or wholly rufescent, edge crenulate, white *Flesh* pale orange or pale purple-hyacinth

Odour strong of meal or pears Woods, pine, etc June–Oct $3 \times 3\frac{1}{2} \times \frac{1}{2}$ in
 Red when bruised or broken Closely allied to 608

609a I adequata Sacc (from its claim to equal specific rank with 610)

P campanulate, then expanded, squarrose and fibrous-scaly, yellow and red-brown or pale, somewhat vinous-umber with darker umber sc *St* whitish- or reddish-fibrous, or as *P* *G* adnexed, thick, somewhat distant, pale greyish-white or yellowish-umber, becoming greyish brown, always with a white edge

Odour none Woods Summer and autumn $3\frac{1}{2} \times 4\frac{1}{4} \times \frac{3}{8}$ in Allied to 610

610 I scabra Gill (*scaber*, rough) *a b c*

P convex, subgibbous, pale fuliginous, tan or umber *St* solid, whitish *G* adnexed, often separating from stem, dull whitish-brown *Flesh* white

Suspected poisonous Woods, plantations, fir, mixed, frequent June-Oct $1\frac{1}{2} \times 1\frac{1}{2} \times \frac{1}{4}$ in Var *firma* Mass fuscous tan with fuscous scales

611 I maritima Karst (from its being first found on the sea-shore) *a b c*

P hygrophanous, expanded, obtuse or umbonate, fuscous or mouse-colour, hoary when dry *St* solid, paler than *P* *G* adnexo-rounded, or somewhat sinuate, grey, then ferruginous

Sometimes cæspitose Odour faint Woods, pine, sandy places, damp and by sea shores Sept-Oct $1\frac{1}{4} \times 1\frac{1}{8} \times \frac{3}{8}$ in

612 I lacera Quel (from the scaly-torn pileus, *lacerus*, torn) *a c*

P expanded, subumbonate, mouse-colour, pale and yellow when old *St* stuffed, paler than *P*, white and mealy *G* attenuato-adnexed, mouse-colour *Flesh* reddish

Commonly gregarious Woods, pine, mixed July-Oct $1\frac{1}{2} \times 1\frac{1}{4} \times \frac{3}{8}$ in

613 I flocculosa Sacc (from the small flocci on the pileus) *a b c*

P convex, umbonate, rufescent-sienna *St* paler than *P*, solid, stuffed or hollow *G* adnato-ascending, colour as *St*, then chocolate with a white edge

Odour of new meal, but nauseous Amongst grass, woods Sept-Oct $1 \times 2\frac{1}{4} \times \frac{1}{8}$ in Compare 602 and 612

614 I Bongardii Karst (after H G Bongard, a Russian botanist) *a b c*

P campanulate, obtuse, greatly to slightly scaly, often cracking between the sc and showing the flesh, fuscous, pale when dry *St* solid, subbulbous, lighter than *P*, sometimes dark below *G* adnexed, ventricose, reddish, cinnamon or umber, edge white *Flesh* reddish

Usually solitary Odour pleasant of ripe pears or bergamot Sandy ground, sand hills, pine woods, pastures May-Oct $2\frac{1}{2} \times 4 \times \frac{3}{8}$ in

615 I mutica Karst (from the at first obtuse pileus, *muticus*, curtailed) *a b*

P obtuso-convex, plane, then subdepressed, whitish, tan or straw *St* hollow, attenuate downwards, colour as *P* *G* adnate, white or tan, then subfuscous

Woods, shady places, roadsides Sept-Oct $2\frac{1}{2} \times 2 \times \frac{1}{4}$ in

616 I carpta Quél (from the torn woolly pileus, *carpo*, to tear)
a b c

P flat or depressed, dark fuscous or umber *St* hollow, attenuate downwards, paler than *P* *G* adfixed to adnate, ventricose, brown-fuscous with a pale edge

Taste bitterish sweet Woods Aug $1\frac{1}{2} \times 1\frac{3}{4} \times \frac{1}{8}$ in

617 I deglubens Gill (from the fibrils of the pileus which peel off, *deglubens*, peeling off) *a b*

P expanded, obtusely umbonate, date-brown-rufescent, becoming yellowish *St* solid, colour as *P* above, paler and yellowish below *G* adnate, ventricose, grey then cinnamon

Woods, vine, moist places, rare Aug–Sept $1\frac{1}{2} \times 2\frac{1}{4} \times \frac{1}{8}$ in

617a I cervicolor Quél (from its dark tawny colour, as of a deer, *cervus*, a stag) *a*

P campanulate, covered with brown recurved fibrils *St* firm, whitish, fibrillose, with brown recurved filaments throughout its length *G* emarginate, ventricose, distant, rusty brown, marg denticulate, whitish *Flesh* white, tinged purplish when cut

Odour strong, unpleasant Amongst grass, woods Autumn $\frac{7}{8} \times 3 \times \frac{1}{8}$ in
Compare 614

618 I obscura Gill (from the dark scales of the pileus, *obscurus*, dark) *a b c*

P expanded, umbonate, purplish-brown or shaded lavender or faint crimson *St* stuffed, lilac or purplish above, yellow-brownish below, lilac within *G* sinuato-adnexed, olivaceous, then brown

Subcaespitose Odour strong, somewhat bitter Amongst pines, damp places, woods, rare July–Nov $2\frac{1}{2} \times 1\frac{3}{4} \times \frac{1}{4}$ in Var *rufa* Sacc, *P* brownish rufous, *G* violet

619 I Rennyi Sacc (after James Renny, mycologist) *a b*

P hemispherical, fawn-colour, mid brown *St* equal, whitish at top and bottom, yellow-brown in mid *G* adnexo-ascending with a tooth, whitish-brown then cinnamon

Woods, fir Nov $1\frac{1}{2} \times 2\frac{3}{8} \times \frac{1}{8}$ in The var *major* Mass is illustrated in the Public Gallery, the type is little more than half this size

c Rimosa

620 I schista Sacc (from the clefts in the pileus, Gr *schistos*, a cleft), *a b*

P campanulate, obtuse, shining bay-brown, mid sienna *St* solid, twisted, splitting, paler than *P* *G* adnato-ascending with a tooth, separating, sienna-cinnamon, edge serrate, white

Taste pleasant, somewhat insipid Lawns May $2\frac{3}{4} \times 3 \times \frac{1}{2}$ in

621 I fibrosa Gill (from the fibrous pileus) *a b c*

P campanulato-expanded, umbonate, mid foxy-red, lighter at marg *St* solid, splitting, pale ochreous *G* adnexo-sinuate, separating, foxy

Odour fetid Woods, fir May-Sept $5\frac{1}{2} \times 4\frac{1}{2} \times \frac{7}{8}$ in

621a I proximella Karst (from its superficial resemblance to 628) *a*

P conico-convex, then expanded and umbonate, even, then longitudinally fibrosely cracked, pallid, mid and um rusty-brown or bay *St* stuffed, sometimes wavy, subfibrillose, pallid *G* adnate, crowded, broad, ventricose, pallid, tan, then brown *Flesh* white

Woods Sept $1\frac{3}{8} \times 2\frac{1}{4} \times \frac{1}{2}$ in Distinguished by its ventricose gills

622 I perlata Sacc (from the pileus, *perlatus*, very broad) *a*

P expanded, broadly umbonate, straw-ochreous, mid black-fuscous, marg pale *St* solid, straw-pallid, black-fuscous at base *G* adnexed, subrounded or slightly sinuate, umber

Under trees, hornbeam Aug $4\frac{1}{2} \times 2\frac{3}{8} \times \frac{1}{2}$ in

623 I phæocephala Sacc (from the dusky pileus, Gr *phaios*, dusky, *kephale*, a head) *a*

P conico-campanulate, umbonate, bay-brown, fuliginous or rufous *St* solid, subbulbous, pale brown above, white below *G* adnexo-free, olive-brown

Woods, pine, mixed Oct $3\frac{1}{2} \times 4\frac{3}{4} \times \frac{3}{8}$ in Perhaps not belonging to *Inocybe*

624 I fastigiata Quel (from the pileus, pointed like a gable, *fastigium*) *a b c*

P conico-campanulate, acutely umbonate, dull yellow-brownish *St* solid, paler than *P* *G* adnexo-free, crowded, olive-brown

Gregarious, sometimes crepitate Woods, grassy places, uncommon June-Oct $3\frac{1}{8} \times 5 \times 1\frac{5}{8}$ in

625 I hiulea Gill (from the furrow-like cracks of the pileus, Gr *huo*, to gape) *a c*

P expanded, umbonate, fuscous, olivaceous or ochreous *St* stuffed, whitish *G* adnexo-free, subdistant, olive-brown

Woods, pine uncommon Aug-Nov $2\frac{1}{4} \times 2\frac{1}{4} \times 1\frac{5}{8}$ in Young examples sometimes wholly white Rufoescent when bruised

626 I Curreyi Sacc (after Frederick Currey, mycologist) *a b*

P expanded, dull yellowish-brown *St* solid, pale rufescent-brown *G* free, olive-brownish *Flesh* pale olive-brown

Odour none Woods Aug $2\frac{7}{8} \times 3\frac{3}{8} \times \frac{3}{8}$ in

627 I rimosa Quel (from the cracked pileus, *rima*, a crack) *a b c*

P campanulate, subumbonate or obtuse, rufescent or olive-brown, mid darker, cracks yellowish *St* solid, slightly marginato-bulbous, pallid above, yellowish and rufescent below *G* attenuato-adnexed, olivaceous-brown or fuscous

Subgregarious Odour earthy Woods and open places amongst trees June-Oct $2\frac{7}{8} \times 3\frac{1}{2} \times 1\frac{5}{8}$ in

627a I subrimosa Sacc (from the slightly cracked pileus, *rima*, a crack) *a*

P conico-campanulate, then expanded, prominently umbonate, even, smooth, longitudinally fibrillose, at length cracked, pale ochre, brown or pallid ferrugineo-ochreous, mid brown *St* solid, equal, shining, base somewhat marginately bulbous, white-pruinose *G* attenuate behind, adnexed or free, slightly ventricose, whitish clay-colour, then ferruginous

Taste insipid, odour none Grassy places, gardens Sept $1\frac{1}{2} \times 1\frac{3}{4} \times \frac{1}{8}$ in

628 I asterospora Quel (from the star-shaped spores *aster*, a star) *a b*

P expanded, umbonate, shining, sometimes viscid, sooty-brown, brown-striate *St* marginato-bulbous whitish, often reddish at base *G* emarginato-adnexed to adnate, cinnamon

Taste none, odour mouldy or none Woods and open places amongst trees
Aug-Oct $2\frac{1}{8} \times 3\frac{3}{8} \times \frac{1}{16}$ in

628a I brunnea Quel (from its brown colour) *a*

P campanulate, umbonate, fibrillose-silky, then cracked, chestnut-brown *St* stuffed, thickened below, fibrillose-striate, light brown, apex white-pruinose *G* emarginate, broadest in front, ivory then umber, edge white, indented

Amongst grass, near pines Oct $1\frac{1}{8} \times 1\frac{1}{2} \times \frac{1}{8}$ in

629 I eutheles Quel (from the well-formed umbo, Gr *eú*, well, *thelē*, a teat) *a b c*

P expanded, umbonate, fawn-colour, with darker stræ *St* solid, subbulbous, whitish above, brownish below *G* adnate, subattenuate, tan- or olive-brownish

Taste not unpleasant, odour of new meal, but disagreeable or none
Amongst fir leaves, woods Aug-Oct $2\frac{1}{2} \times 3\frac{1}{2} \times \frac{1}{4}$ in

630 I margarispore Sacc (from the pearl-like spores Gr *margarites*, a pearl) *a*

P expanded, broadly umbonate, fawn-colour or olive tan-brown *St* solid, whitish or shaded tan-olive, darker below *G* ascending, adnexo-adnate, faintly rufescent-pallid

On the ground Oct $2 \times 3\frac{1}{4} \times \frac{1}{4}$ in

630a I prætervisa Quel in Bres (from the fact that it had been previously confused with 624, *præter*, before, *videre*, to see) *a*

P conico-campanulate, then expanded, umbonate, fibrillose-virgate, slightly viscid, fawn *St* solid, bulbous, pubescent, white then pale straw *G* attenuate behind, adnexed, white, then fawn with a white edge *Flesh* white

Taste mild, odour somewhat earthy Woods, pine Aug $1\frac{1}{2} \times 2\frac{1}{4} \times \frac{1}{4}$ in
Distinguished by its viscid pileus Related to 624 and 627, but distinct in its white or straw-coloured stem

630b I Bucknallii Mass (after John Bucknall, mycologist) *a*

P campanulato-convex, fibrillose, mid subsquamose, brownish
St fibrillose, brownish *G* adnexed, thick, subdistant, rusty-brown, edge minutely fimbriate

Under bushes Autumn $\frac{5}{8} \times 1\frac{1}{2} \times \frac{1}{8}$ in Distinguished by the large size of the basidia, spores and periphyses

630c I duriusecula Rea (from its firm substance) *a*

P fleshy, campanulate, expanso-gibbous, floccose, soon longitudinally fibrillose, tawny-ochreous, mid paler, marg at length revolute *St* solid, firm, apex and base slightly enlarged, striate, white *G* sinuato-adnate, decurrent as ribs on apex of *St*, somewhat crowded, white, then brown *Flesh* white

Open places in woods Sept $2\frac{3}{8} - 2\frac{3}{4} \times 3\frac{1}{4} \times \frac{5}{8}$ in

631 I destrieta Qué! (from the fibres of the pileus stripping off, *dstringo*, to strip off) *a b c*

P flat, umbonate, whitish to vinous or rich sienna-brown, fibres stripping off and often showing white cracks *St* solid, sometimes subbulbous, light or dark rufescent or whitish above or below *G* uncinato-adnate, grey-brown or olive shaded *Flesh* rufescent

Odour unpleasant Woods, pine, oak July-Oct $2\frac{1}{2} \times 2\frac{1}{8} \times \frac{1}{4}$ in Sometimes 4 inches or more high

632 I perbrevis Gill (from the comparatively short stem *perbrevis*, very short) *a b*

P expanded undulate, umbonate, dry, silky, fibrillose, tawny or rufous, becoming yellowish *St* stuffed, attenuate downwards, colour as *P* *G* uncinato-adnexed or sinuate, subdistant, tawny to cinnamon

Woods, shady places Autumn $2 \times 1\frac{1}{4} \times \frac{1}{8}$ in

633 I deseissa Qué! (from the split pileus, *scissus* split) *a b c*

P campanulate, umbonate, whitish to pallid fuscous or ochreous-sienna *St* hollow or solid, white or pallid, darker below *G* adnexo-free, fuscous

Suspected poisonous Woods, pine, rare Sept-Nov $1\frac{1}{2} \times 1\frac{1}{4} \times \frac{1}{8}$ in
 Var *auricoma* Gill smaller, *P* golden fibrillose Somewhat resembling 640, but differing in colour of *P* and absence of odour

633a I Godeyi Gill (after Dr Godey, French botanist) *a*

P campanulate, obtusely umbonate, silky, fibrillose, rimose, whitish, then tinged rosy, sometimes rosy and ochreous *St* equal, subbulbous, colour of *P*, apex white-pruinose *G* adnexo-free, narrowed behind whitish, then dusky cinnamon with an olive tinge, edge minutely flocculose, white

Autumn $1\frac{1}{4} \times 2\frac{3}{4} \times \frac{1}{4}$ in Rosy-red and ochreous rosy when bruised

634 I Trinii (after Carl Bernard Trinius, Russian botanist) *a b*

P convex, obtuse, whitish-rufescent, tawny or pale brown-reddish *St* stuffed, colour as *P*, or paler *G* rounded-adnexed,

ventricose, cinnamon with a white slightly jagged edge *Flesh*
pale salmon

Odour strong of clove pink, evanescent Grassy places, woods Aug -
Sept $\frac{3}{4} \times 1\frac{1}{2} \times \frac{1}{8}$ in Sometimes $1\frac{1}{2} \times 1\frac{1}{2}$ in

d Velutina

635 I sambucina Qué! (from its being first noted under elder,
sambucus) *a*

P convex, obtuse, often repand, whitish *St* solid, striate,
colour as *P* *G* adnexed, colour as *P* or pale tan-brownish

Solitary Odour strong, disagreeable Woods, pine, grassy places
 $2\frac{1}{2} \times 1\frac{1}{2} \times \frac{1}{2}$ in Compare **638** which has narrower gills

636 I cæsariata Karst (from the woven-hairy pileus, *cæsariatus*,
covered with hair) *a b c*

P expanded, subumbonate, dull tawny *St* solid, pale brownish-
ochreous *G* adnexo-adnate, dull whitish to brown

Gregarious, subcæspitose Odour disagreeable Under beeches Sept -Oct
 $2\frac{1}{2} \times 1\frac{1}{2} \times \frac{1}{8}$ in

637 I lucifuga Gill (from its habit, apparently shunning light,
lux, light, *fugio*, to flee) *a b c*

P plane, subumbonate, brownish-olivaceous or fawn *St* solid,
paler than *P*, or pallid *G* adnexed, yellowish or olivaceous,
then dark olive

Odour strong, pleasant or unpleasant, somewhat of radish Woods, pine,
frequent Sept -Oct $1\frac{1}{2} \times 2\frac{3}{4} \times \frac{1}{2}$ in

638 I sindonia Karst (from the woven surface of the pileus,
Gr, *sindon*, muslin) *a b c*

P convex, gibbous or subumbonate, whitish or faintly ochreous,
marg when young fibrillose with *V* *St* hollow, whitish *G*
attenuato-adnexed, whitish-fuscescent

Mixed woods, damp shady places, rare Sept -Oct $2\frac{1}{2} \times 2\frac{1}{2} \times \frac{1}{8}$ in
Resembling **640**, but differing in the hollow stem and absence of odour

639 I Clarkii Sacc (after J Aubrey Clark) *a*

P campanulate, obtuse, whitish *St* stuffed to solid, flocculose,
colour as *P* *G* ascending, adnexed, whitish-fuscescent with a
white edge

On the ground, shady places in woods Oct $1 \times 1\frac{1}{2} \times \frac{1}{8}$ in

639a I corydalina Qué! (from its odour of *Corydalis cava*) *a*

P campanulate, then expanded, fibrillose, white, the prominent
um glaucous-green *St* fragile, pruinose, white, then fuscous
G adnato-emarginate, narrow, brown, with a white edge
Flesh white, sometimes tinged violet

Under oaks Sept $2 \times 2\frac{1}{2} \times \frac{3}{8}$ in

640 I geophylla Qué! (from the earthy colour of the gills,
Gr, *ge*, the earth, *phyllon*, a leaf) *a b c*

P expanded, umbonate, never truly squamulose, white, lilac or
pale or dark bright purplish-blue, mid sometimes brown,

or whole P brown *St* stuffed, sometimes with slight trace of A, white, or as P *G* adnexo-free, separating from hymenophore, umber

Odour usually faint, sometimes very strong and unpleasant Woods under trees, hedges Autumn $\frac{3}{8} \times 2 \times \frac{1}{4}$ in Var *lateritia* W G Sm, *Agaricus geophyllus* Sowerb, var *lateritius* Stev *P* red varying yellow or white, sometimes white scaly There is a large form, twice the size of type or larger

- 641 I scabella** Quel (from the roughish pileus, *scaber*, rough) *a b*
P expanded, umbonate, scaly-torn, fuscous *St* white, or as P
G adnato-adnexed, yellow-brown or fuscous

Gregarious Odour none Woods, amongst short grass Sept-Nov
 $1\frac{1}{2} \times 1\frac{1}{2} \times \frac{1}{2}$ in

- 641a I fulvella** Bres (*fulvus*, yellowish-brown)

P subhygrophanous, conico campanulate, then expanded and umbonate, floccosely silky, yellowish then brownish-olive, mid tawny *St* stuffed, narrowed downwards, glabrous, lilac, then rufescent, apex white-pruinose *G* subdistant, ventricose, rounded behind and nearly free pale lilac, then ochraceous-cinnamon, edge fimbriate *Flsh* yellow, rufescent-lilac at apex of stem

Shady places Autumn $\frac{1}{2} \times 1\frac{1}{2} \times \frac{1}{4}$ in Allied to 641

- 642 I violaceofusca** Sacc (from the dusky-violet colour of the stem and gills) *a*

P expanded, obtusely subumbonate, squimose, umber marg fimbriate with V *St* solid, pale violaceous above, pallid below
G adnate or emarginate pale dull violaceous then umber

Subcaespitose Amongst grass in open places Autumn $2\frac{1}{2} \times 1\frac{3}{4} \times \frac{1}{4}$ in

c Viscidæ

- 643 I trechispora** Karst (from the rough spores Gr *trachus*, rough, *spora*, a seed) *a b c*

P expanded umbonate, whitish with mid tawny *St* stuffed, white with a mass of white mycelium at the base *G* emarginate, or attenuato-adnexed, pinkish-grey, then brown

Woods, damp places amongst ferns July-Oct $1\frac{1}{2} \times 2_6 \times \frac{1}{8}$ in Sometimes fatal to pheasants

- 644 I vatricosa** Karst (from the stem, twisted below *vaticosus*, with bad feet) *a c*

P plane, broadly subumbonate, whitish or shaded light-yellowish
St hollow colour as P, white-pulverulent *G* adnexed, broadly emarginate, ochreous-fuscous

Odour none Woods, pine, bare places, on dead stumps, twigs, chips
Sept $1\frac{1}{2} \times 2\frac{1}{2} \times 1\frac{1}{8}$ in

- 645 I Whitei** Sacc (after Dr F Buchanan White, botanist) *a c*

P hemispherico-campanulate, obtuse, tawny, marg whitish
St solid, white, becoming tawny *G* adnexed, tawny

Woods, pine Oct $1\frac{1}{2} \times 1\frac{1}{2} \times \frac{1}{2}$ in Allied to 640

646 I. *Tricholoma* Sacc (from its resemblance to species of *Tricholoma*) *a b c*

P convexo-plane, subdepressed, ivory-whitish, shaded pale buff, marg fringed with V *St* stuffed, fibroso-scaly above, colour as *P*, or faintly shaded salmon *G* adnato-decurrent, crowded, pale clay-fuscos or faintly olive-shaded

Woods, mixed Nov $1\frac{1}{2} \times 1\frac{1}{2} \times \frac{3}{16}$ in

XXVI HEBELOMA Quel

(From the fringe-like veil, seen in certain young examples, *Gr hebe*, youth, *loma*, a fringe)

Veil partial—in 648, 654a and 655 forming an imperfect annulus—or universal, indicated by gluten, squamules, fibrillæ or silkiness *Hymenophor*ic confluent and homogeneous with the fleshy stem *Pileus* fleshy, cuticle continuous, smooth, damp, subviscid or

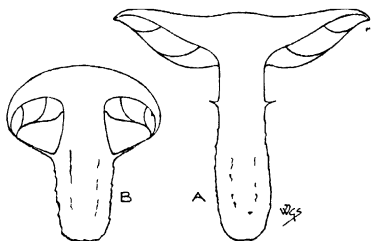


Fig 35 —A section of *Hebeloma fastibile* Quel B, ditto half grown example showing veil One half natural size

glutinous, margin at first incurved, sometimes silky from veil *Stem* central, simple, fibrous-coated, submealy at the apex, simple or rarely imperfectly annulate *Gills* sinuato-adnate or adnexed, at first pallid-whitish or clay-colour, then darker *Spores* dull tan or somewhat clay-colour or brown (Fig 35)

All the species, except 649, grow on the ground, they are gregarious and strongly scented, some are poisonous, none are edible, they appear early in autumn and last till late in the season

Hebeloma corresponds with the non-fibrillose species of *Tricholoma*, *Entoloma* and *Hypholoma*

Species 647—669

a Indusiatæ *Pileus* furnished with a cortina from the veil, by which the margin is often superficially silky *Stem* usually white-pruinose or white-mealy above or minutely white-scaly **647—657**

b Denudatæ *Pileus* smooth, cortina obsolete **658—667**

- c Pusillæ* *Pileus* scarcely an inch broad, stature that of *Naucoria*, but without the cartilaginous bark 668, 669

a Indusiata

- 647 *H mussivum* Sacc (from its uncertain position amongst the *Indusiata*, *mussivus*, undecided) *a*

P plane, obtuse or subumbonate, pale primrose-yellowish, mid sienna *St* stuffed or hollow above, fibrillose, light yellow *G* emarginate or somewhat rounded adnate, light yellow then subferruginous *Flesh* becoming yellow

Odour faint, not unpleasant Woods, pine Oct $4\frac{1}{2} \times 5\frac{1}{2} \times 1$ in

- 647a *H sinuosum* Quel (from the frequently irregular pileus) *a b*

P fleshy, convex, expanded, obtuse, even, almost glabrous, viscid, then dry, yellowish-red to pale buff, sometimes whitish, marg wavy *St* stuffed to hollow, equal, fibriloso-striate, at first flocculoso-squamulose above, soft, biscuit *G* slightly adnexed, broadly emarginate to emarginato-free, dry, crowded, dull white to brownish-salmon and ferruginous *Flesh* white

Odour faint, pleasant Woods Aug $3\frac{1}{2} \times 5 \times \frac{1}{2}$ in

- 648 *H fastibile* Quel (from its disagreeable odour) *a b c*

P convexo-plane, viscid in wet weather, pale yellowish-tan, mid darker, sometimes sienna *St* solid, fibrillose, scaly or white silky, sometimes with an imperfect silky-floccose *A* *G* emarginate, subdistant, dull whitish-clay-colour or tan-brownish

Subcespitose, often in large dense rings Poisonous Taste like radishes, but disagreeable and bitter, odour disagreeable, fetid Woods, mixed pastures, near trees and bushes, sometimes on mushroom beds common July-Oct $4 \times 2\frac{1}{2} \times \frac{3}{4}$ in Often mistaken for the mushroom and sold in markets with mushrooms Often slug eaten Var *elegans* Mass, *P* purple brown

- 649 *H glutinosum* Sacc (from the glutinous pileus) *a b c*

P plane, obtuse, yellow-white or pale buff with mid rich sienna-buff, white-squamulose *St* stuffed, attenuate upwards, white, dull faint ochreous below, clad with fugitive white sc *G* sinuato-adnate, light yellowish then clay-cinnamon *Flesh* pale reddish in stem

Taste and odour mild, not unpleasant of radish Woods, among leaves and branches, oak, beech, frequent Sept-Dec $3\frac{1}{2} \times 3\frac{1}{2} \times \frac{1}{2}$ in Sometimes one third the size of type Compare 678

- 650 *H testaceum* Quel (from the colour of the pileus, *testa*, a brick) *a b c*

P convex, obtuse or subumbonate, crimson-sienna through red and yellowish to tan *St* hollow above, fibrillose, colour as *P* or paler *G* attenuato-sinuate or almost free, clay-colour then subferruginous or crimson-sienna

Taste disagreeable, sickly nauseous, odour faint of radish or none Woods, fir, pastures, frequent Sept-Nov $2\frac{1}{2} \times 3\frac{1}{2} \times 1\frac{1}{2}$ in

651. H firmum Gill (from its firm substance) *a*

P flat, subumbonate, subsquamulose, yellowish-brown or reddish, mid darker *St* solid, brownish, darker below, white-squamulose *G* adnexed or adnate, rounded, ferruginous, edge white, serrulate

Odour faint Woods, fir Feb - Oct $2\frac{3}{8} \times 3 \times \frac{3}{8}$ in

652 H claviceps Quel (from its resemblance, when young, to a nail, *clavus*, a nail, *caput*, the head) *a*

P hemispherical, gibbous-expanded, viscid, whitish or faintly yellowish, mid sienna, marg fibrillose with V *St* stuffed, whitish, fuscous below *G* emarginate, pallid brown

Woods, mixed, uncommon Sept - Oct $1\frac{3}{4} \times 3\frac{1}{8} \times \frac{1}{4}$ in

653 H punctatum Quel (from the viscid-dotted pileus *punctus*, a point) *a*

P plano-gibbous, pale sienna-brown, whitish at marg *St* hollow, silky-fibrillose, faintly brownish *G* sinuato-adnate, brownish

Gregarious, in troops Odour faint, not unpleasant Woods, pine, uncommon Sept $2 \times 3\frac{1}{4} \times \frac{1}{4}$ in

654 H versipelle Gill (from its changeable appearance, *certo*, to turn, *pellis*, skin) *a b c*

P flat, silky-agglutinate, sienna-reddish or dull tan *St* hollow, tan-white, fuscous below *G* rounded, serrulate, whitish-flesh-colour

Subcaespitose Odour faint not unpleasant, but sometimes strong, fetid only or like bugs Grassy places, amongst fir leaves Aug $2\frac{1}{2} \times 3 \times \frac{3}{8}$ in

654a H strophosum Sacc (from a fancied resemblance in the annulus to a sword-belt, Gr *strophos*) *b*

P convex, plane, slightly subumbonate, somewhat viscid, bay or vinous sienna, clouded deep claret-brown marg white silky *St* hollow, equal, silky, whitish, shaded brown or red-salmon within and without near base *A* superior, silky-white *G* adnexo-free, crowded, ventricose, cream to dull flesh-colour and dull cinnamon *Flesh* white

On the ground Oct $1\frac{1}{2} \times 1\frac{3}{4} \times \frac{1}{16}$ in

655 H mesophæum Quel (from the dusky centre of the pileus, Gr *mesos*, the middle, *phaios*, dusky) *a b c*

P plane, subgibbous, pale yellowish or pale pinkish-brown *St* fistulose, fibrillose, whitish or faintly ochraceous, ferruginous below, sometimes with an imperfect fugitive *A* *G* rounded or emarginate, pale clay-ferruginous

In troops, gregarious Odour faint Woods, pine, uncommon Sept - Oct $1\frac{3}{4} \times 2\frac{1}{4} \times \frac{1}{16}$ in

656 H subcollariatum Sacc (from the gills which form an imperfect collar at the apex of the stem) *a b*

P convex, subviscid, pallid, mid fuscous, marg at first white and scaly *St* stuffed or fistulose, brown at base *G* sinuato-
adnate, clay-colour with white edge

Subcæspitose Taste and odour strong and rank, like 1527 On the
ground May-Oct $1\frac{1}{2} \times 2\frac{1}{8} \times \frac{3}{8}$ in

657 H senescens Sacc (from the hoary margin of the pileus and the white apex of the stem, *senesco*, to grow old) *a*

P obtuse or subdepressed, ochreous-tawny *St* solid, squamulose, white above, fuscous below *G* rounded-adnexed, crowded, cinnamon

Odour acrid Amongst firs Sept $4 \times 3\frac{3}{8} \times \frac{3}{4}$ in

b Demidata

658 H sinapizans Gill (from its odour, *sinapi*, mustard) *a b*

P expanded, undulate, subdepressed, subviscid, pale clay-colour, mid yellowish *St* somewhat solid, whitish *G* emarginate, crowded, unspotted, not distilling drops, clay-cinnamon

Solitary Odour strong, usually of radish Under trees, fields, woods, uncommon Sept-Oct $5\frac{3}{8} \times 2\frac{1}{8} \times 1\frac{1}{2}$ in *P* sometimes 9 in in diam
Compare with 473

659 H crustuliniforme Quel (from the shape of the pileus, *crustulum*, a small pie) *a b c*

P expanded, obtuse or subumbonate, subviscid, whitish, mid pale reddish-ochreous *St* whitish *G* adnexed, crowded, distilling drops, clay-colour or brown

Sometimes forming large rings Poisonous Odour very strong of radish, but fetid or like hurel flowers Woods, mixed, lawns, pastures, on heavy soil, common Aug-Nov $4\frac{1}{2} \times 2\frac{1}{2} \times 1$ in Variable in size Often mistaken for the horse mushroom, 789

659a H subsaponaceum Karst (from the somewhat soapy odour, *sapo*, soap)

P fleshy, obtuse, pallid, darker when dry *St* equal, somewhat wavy, adpressedly fibrillose, apex somewhat mealy *G* adnate

Taste bitter, odour strong of soap Woods, mixed, fir Aug $1\frac{1}{2} \times 1 \times \frac{1}{8}$ in

660 H elatum Gill (*elatus*, tall) *a b*

P expanded, subviscid, tan, mid faintly ochreous, slightly reddish or shaded brown *St* stuffed, twisted, whitish or faintly ochreous *G* adnato-rounded with a tooth, pale cinnamon, becoming cinnamon-salmon, sometimes with a white edge

Odour very strong of radish Woods, pine, commons, under oaks Sept-Nov $2 \times 4\frac{1}{2} \times \frac{1}{2}$ in

- 661 H longicaudum** Qué! (from the long stem, *longus*, long, *cauda*, a tail) *a b*
P expanded, sometimes umbonate, viscid, clay-colour, mid darker *St* stuffed, subbulbous, fibrous-elastic, white above, tawny below within and without *G* emarginate, crowded, serrulate, cinnamon
 Odour faint, not unpleasant Woods Sept-Nov $5 \times 7\frac{3}{4} \times \frac{5}{8}$ in Var *radiatum* Sacc *St* fusiform rooting
- 662 H lugens** Gill (from its sombre colour, *lugeo*, to mourn) *a*
P convexo-plane, subviscid, brown or yellowish *St* solid, shining, fibrilloso-striate, whitish *G* attenuato-adnexed or almost free, ferruginous
 Odour strong, not radish like Under beeches $2\frac{3}{4} \times 2\frac{1}{2} \times \frac{3}{8}$ in
- 663 H truncatum** Sacc (from the short stem, *truncus*, maimed) *a b*
P obtuse, repand, irregular, ochreous-rufous or tan-ochreous, faintly shaded rose *St* solid, pruinose, white *G* emarginate or emarginato-free, watery-ferruginous
 Subcaespitose Odour faint, not unpleasant Grassy places in woods Sept $3\frac{1}{2} \times 2\frac{1}{8} \times \frac{3}{4}$ in
- 664 H nudipes** Karst (from the naked stem, *nudus*, naked, *pes*, a foot) *a b*
P expanded, subumbonate, viscid, pale clay or ochreous-white, marg thin, exceeding *G* *St* solid, smooth, whitish *G* emarginate, sienna-tan
 Odour faint, not unpleasant, somewhat of meal Woods Oct $2\frac{3}{4} \times 3 \times \frac{1}{4}$ in
- 665 H ischnostylum** Sacc (from the thin stem, Gr *ischnos*, thin, *stulos*, a pillar) *a b*
P expanded, broadly subumbonate, subviscid, whitish mid pallid *St* naked, colour as *P* *G* adnate, clay colour
 Odour none, or faint of meadow sweet Fields, plantations, woods, amongst grass Sept-Oct $1\frac{3}{4} \times 2 \times \frac{1}{8}$ in
- 666 H nauseosum** Sacc (*nauseosus*, rank-smelling) *a b*
P convex, gibbous, subviscid, ochreous-white, mid sienna-tan *St* solid, silky-fibrillose, white-mealy above, base at length black *G* sinuate, broad, subdistant, salmon then ferruginous, sometimes with a purplish shade
 Odour very strong and offensive Woods, mixed Oct $2\frac{1}{4} \times 3\frac{1}{4} \times \frac{1}{2}$ in
- 667 H capniocephalum** Gill (from the sooty-coloured pileus, Gr *kapnos*, smoke, *kephale*, the head) *a c*
P convexo-plane, viscid, pale yellowish, mid sienna or sooty, marg at length black *St* stuffed, attenuate below, rufescent, fibrilloso-striate on a whitish ground *G* emarginate, subcrowded, brown-ferruginous
 Woods, mixed, elm-stumps Oct-Nov $3\frac{1}{2} \times 2\frac{1}{4} \times \frac{3}{8}$ in

c Pusilla

668 **H magnimamma** Karst (from the large umbo, *magnus*, large, *mamma*, breast) *a*

P plane, ochreous-red, then pale yellowish *St* stuffed or fistulose, smooth, naked, colour as *P* *G* adnate, subsinuate, ferruginous

Amongst grass, under apple trees Sept $1 \times 1\frac{1}{2} \times \frac{1}{8}$ in

669 **H petiginosum** Quel (from the scurfy-hoary pileus, *petigo*, scab) *a b c*

P convex, subumbonate, hoary-silky, brown or shaded ochreous, rufescent, slate or purplish *St* stuffed, rufescent, paler above, white-pulverulent *G* slightly adnexed, or free, crowded, olivaceous-brown or shaded rufescent

Woods, beech Oct $1 \times 1\frac{1}{8} \times \frac{1}{8}$ in

XXVII FLAMMULA Quel

(From the frequent flame-like colours, *flamma*, a flame)

Vil fibrillose, fugitive or obsolete *Hymenophore* confluent and homogeneous with the fleshy stem *Pilus* fleshy, margin at first involute *Stem* central, subannulate or simple, fleshy-fibrous, not

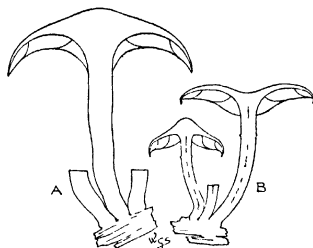


FIG. 36.—A section of *Flammula gymnopodia* Quel
B ditto *F. flavida* Quel One third natural size

mealy above *Gills* decurrent or adnate, without a sinus, commonly entire and of one colour, at first whitish, clay-colour or yellowish, then coloured by the spores *Spores* mostly pure ferruginous, sometimes fuscous-ferruginous or tawny-ochraceous (Fig 36)

The species usually grow on wood, some grow on the ground, many are bright yellow, orange or orange-brown in colour Some agree in structure with *Clitocybe* and *Clitopilus*, those growing on wood approach *Pholiota*, and agree with *Armillaria* and in part with *Hebeloma* and *Stropharia*

Species 670—702

- a Gymnotæ* *Pileus* dry, most frequently squamulose *Vel* none, except 673 and 676 *Spores* ferruginous, fuscous-ferruginous in 675 670—677
- b Lubricæ* *Pileus* covered with a continuous, subseparable, smooth, viscid pellicle *Vel* fibrillose *Gills* usually not truly sinuate *Spores* ferruginous, fuscous-ferruginous in 685, not tawny Gregarious, terrestrial, rarely growing on wood Allies of *Hebeloma* 678—685
- c Udæ* *Pileus* with a continuous, non-separable cuticle, slightly viscid in rainy weather *Vel* appendiculate at the margin of the pileus, or forming an imperfect fibrillose annulus *Spores* not tawny or ochraceous Cæspitose Growing on wood Allies of *Pholiotæ* 686—694
- d Sapineæ* *Pileus* scarcely pelliculose, flesh scissile or torn above into scales, not viscid *Vel* fibrilloso-adpressed to the stem, not appendiculate at the margin of the pileus *Gills* light yellow or yellow, then tawny Subcæspitose On pines, or terrestrial amongst pine-branches 695—698
- e Sericellæ* *Pileus* dry, or at first viscid, slightly silky *Vel* fibrillose 699—702

a Gymnotæ

- 670 F gymnopodia** Quel (from the naked stem, Gr *gymnos*, naked, *pous*, a foot) *a*
P convex, gibbous, squamulose, ochraceous-sienna, mid darker
St solid, paler than *P* *G* deeply decurrent, crowded, colour as *P*, cinnamon or orange
 Cæspitose Pine sawdust, on the ground Autumn $4\frac{3}{4} \times 3 \times \frac{1}{2}$ in
- 671 F Aldridgei** Mass (after Miss Emily Aldridge) *a*
P infundibuliform, velvety, rich orange mid sienna *St* hollow, colour as *P*, black below *G* deeply decurrent, rich orange
 Gregarious Woods, amongst moss Sept $2\frac{1}{2} \times 2\frac{3}{4} \times \frac{1}{2}$ in
- 672 F vinosa** Gill (from its colour *vinum*, wine) *a c*
P infundibuliform, flocculose, umber, pink-shaded *St* solid, attenuate upwards, flocculose, paler than *P* *G* decurrent, colour as *St*, faintly pinkish at base
 On the ground, rare Oct $2\frac{3}{4} \times 1\frac{1}{2} \times \frac{5}{16}$ in
- 673 F PURPURATA** Sacc (from its purple colour) *a b*
P expanded, subumbonate, minutely flocculose, purple to brownish-purple *St* solid, pallid above, purplish-brown below
A superior, red-fibrillose *G* adnate, lemon-yellow then bright ferruginous, purple-brown where touched
 Taste very bitter Tree fern stems May $2 \times 1\frac{3}{8} \times \frac{3}{16}$ in

674 F floccifera Sacc (from the white fibrils on the pileus, *floccus*, a flock of wool, *fero*, to carry) *a*

P expanded, tawny *St* hollow, attenuate downwards, white-silky, pale ochreous below *G* adnate, wrinkled, ferruginous with a white edge

Cæspitose Lime stumps Oct $2 \times 1\frac{1}{2} \times \frac{1}{4}$ in

675 F decipiens Sacc (from its likeness to **685**, *decipio*, to deceive) *a b c*

P convex, subumbonate, sienna mid almost white *St* stuffed, attenuate downwards, striate, tawny *G* decurrent, crowded, sienna *Flesh* yellowish

Subfasciculate Burnt gorse stumps, in company with **685** June $1\frac{1}{4} \times 1\frac{1}{4} \times \frac{1}{4}$ in

676 F elitopila Sacc (from the depressed pileus *Gr klitos*, a declivity) *a b*

P expanded, dry, pale purplish-brown, becoming whitish *St* hollow, subventricose, attenuate downwards, slightly fibrillose towards base, at first white then paler than *P* *A* imperfect, fibrillose *G* sinuato-adnexed, crowded, colour as *St*

Amongst firs Nov $2\frac{1}{2} \times 2\frac{1}{2} \times \frac{3}{8}$ in

677 F nitens Sacc (from the shining pileus, *nitens*, shining) *a b*

P expanded, obtuse, dry, silky, deep purple-brown or deep bright chestnut *St* solid, fibrillose, reddish-salmon *G* adnate, crowded, clay-umber *Flesh* salmon-white

Cæspitose Taste and odour none On the ground Aug-Sept $1\frac{1}{4} \times 2\frac{1}{2} \times \frac{3}{8}$ in

b Lubricæ

678 F lenta Gill (*lentus*, tough) *a b c*

P plane, obtuse, whitish, clay-colour to lemon-white *V* white, stretching from marg to *St* in infancy *St* substuffed, paler than *P*, pale rufous below, white-scaly *G* adnate, sinuate or decurrent, ferruginous *Flesh* white to pale sulphur, brownish at base of *St*

Sometimes cæspitose Woods, mixed, beech, oak, fir, on wood, leaves, on the ground, meadows Sept-Dec $2\frac{1}{2} \times 2\frac{1}{2} \times \frac{1}{4}$ in See **649**

679 F lubrica Quel (from the slimy pileus, *lubricus*, slimy) *a*

P flat, obtuse or depressed, mid deep sienna, marg orange yellow *St* solid, laxly fibrillose, white above, fuscous below *G* adnate or with a decurrent tooth, clay-colour

Almost scentless On or near trunks Autumn $2\frac{1}{2} \times 2\frac{3}{4} \times \frac{5}{16}$ in

680 F lupina Karst (from the colour of the pileus, *lupus*, a wolf) *a c*

P obtuse, then plano-depressed, tawny *St* stuffed, whitish above, ferruginous and adpressed-fibrillose below *G* adnato-decurrent, light yellowish *Flesh* white

Taste bitter, odour mild to strong and pungent Pastures Aug-Oct $1\frac{1}{2} \times 2\frac{1}{2} \times \frac{1}{4}$ in

- 681 F. mixta** Karst (from its position amongst its allies, *mixtus*, mixed) *a b c*

P plane, subdepressed, tan or shaded-ochreous, mid slightly sienna *St* white-ochreous above, laxly fibrillose and rufous below, minutely fibrilloso-annulate *G* adnate or adnato-decurrent, separating from stem, clay-colour

Subcæspitose Taste disagreeable, odour slight or none Woods, pine, mixed, rare Aug-Nov $2\frac{1}{2} \times 3 \times 1\frac{3}{8}$ in

- 682 F. juncina** Sacc (from its habitat *juncus*, a rush) *a b c*

P convex, sulphur-ochreous mid brown *St* stuffed, attenuate downwards, subfibrillose, colour as *P* *G* adnate, crowded, very thin, red-brown *Flush* sulphur-whitish or livid-brownish

Taste nauseous, disagreeable, somewhat bitter Dead bulrushes Nov $1\frac{1}{2} \times 3\frac{1}{2} \times 1\frac{1}{2}$ in A close ally of **681**

- 683 F. gummosa** Quél (from the viscid-gummy pileus) *a b c*

P flat, obtuse or depressed, light yellowish or olive-shaded, marg appendiculate with *V* *St* silky-fibrillose, paler than *P*, ferruginous below *G* adnate, crowded, cinnamon

Cæspitose Suspected poisonous Taste not bitter, odour none On and about stumps Oct-Dec $2\frac{1}{2} \times 2\frac{1}{2} \times 1\frac{1}{2}$ in

- 684 F. spumosa** Karst (from the frothy-viscid pileus, *spuma* froth) *a b c*

P flat, obtuse or depressed, light yellowish or olive-shaded, mid sienna, or whitish with mid sulphur and yellow, marg appendiculate with *V* *St* silky-fibrillose, paler than *P*, ferruginous below within and without *A* slight, fibrillose, evanescent *G* adnate, crowded, pale olive-brown to cinnamon

Solitary, gregarious or subcæspitose, sometimes in rings Taste not bitter, odour none Woods, fir, stumps, sawdust Sept-Dec $2\frac{1}{2} \times 2\frac{1}{2} \times 1\frac{1}{2}$ in

- 685 F. carbonaria** Quél (from its habitat *carbo*, charcoal) *a b c*

P plane, sometimes depressed, tawny *St* fibrilloso-squarmllose, brownish-white above, brown below *G* adnate, fuscous, clay-colour *Flush* brownish-white *Spores* fuscous-ferruginous

Single or subcæspitose Taste sweetish Burnt wood, earth and leaves in and near woods, frequent Sept-Dec $2\frac{1}{2} \times 2\frac{1}{2} \times \frac{1}{2}$ in Sometimes 4×4 in

c Uda

- 686 F. filia** Mass (*filia*, a daughter, derivation obscure) *a b*

P expanded, subumbonate, buff, mid sienna, marg white-zoned with *V* *St* stuffed, fibrilloso-striate, rooting, partially annulate, whitish above, buff or salmon-buff below *G* sinuato-decurrent, tan-buff or olive-shaded

Odour none Woods, logs, on the ground Oct $4 \times 6 \times 2$ in

- 687 F fusus** Gill (from the spindle-shaped stem, *fuscus*, a spindle) *a*
P plane, depressed, whitish-brown, mid sienna *St* stuffed
 whitish above, pale brown below *G* subdecurrent, ferruginous
 Solitary, gregarious, sometimes cæspitose Taste mild Woods, stumps,
 on the ground Sept–Nov $4 \times 2\frac{1}{2} \times \frac{1}{8}$ in Var *superba* Mass, bright
 deep orange, *G* bright yellow
- 688 F astragalina** Quel (from its colour, Gr *astragalinos*, a gold-
 finch) *a b*
P expanded, blood-saffron, mid almost vermilion, marg
 yellow, with fibrillose sulphur-white *V* when young *St* hollow,
 saffron, base darker *G* sinuato-adnate, white, sulphur, then
 yellowish-brown or olive-shaded *Flesh* saffron
 Taste and odour bitter, nauseous, as in 69 Stumps, pine, fir Aug–Oct
 $1\frac{1}{2} \times 3\frac{1}{2} \times \frac{1}{4}$ in Sometimes turns black when cut or bruised
- 688a F rubicundula** Sacc (from the vinous stains, *rubicundulus*,
 somewhat reddish) *a b*
P fleshy, convex, plane, viscid and innato-fibrillose, then smooth,
 yellow, becoming vinous-shaded, marg paler *St* solid,
 whitish then red shaded, white-mealy above *G* sinuato-
 adnate to adnato-decurrent, crowded, light ochre then ferru-
 ginous edges reddening with age *Flesh* bright yellow, then
 lighter
 Taste acid odour none Woods, under scrub oak July–Sept
 $3 \times 4\frac{1}{4} \times \frac{1}{8}$ in Allied to 688
- 689 F alnicola** Quel (from its frequent habitat, *alnus*, alder)
a b c
P flat, sulphur-yellow mid sienna, marg clouded sulphur-
 greenish *St* attenuato-rooting, sulphur-yellow above, sienna
 below, sometimes with an imperfect fibrillose *A* *G* adnate
 with a small tooth, bright ferruginous *Flesh* sulphur-yellow
Spones umber
 Usually fasciculate Taste and odour strong, dry insipid, bitter or acid On
 or near stumps, alder, willow, oak, thorn, birch, sallow, rare Sept–Oct
 $2\frac{1}{2} \times 4\frac{1}{2} \times \frac{1}{4}$ in
- 690 F flavida** Quel (*flavus*, light yellow) *a b c*
P expanded, mid darker yellow *St* colour as *P*, ferruginous
 at base *A* slight, fibrillose, fugitive *G* adnate, tawny-
 ferruginous *Flesh* light-yellowish
 Cæspitose, sometimes in large clusters Tasteless or insipid Woods,
 stumps, fir, lime, on the ground, frequent Aug–Nov $3\frac{1}{2} \times 3\frac{1}{2} \times \frac{1}{8}$ in
- 691 F inaurata** Sacc (from the colour, *inauro*, to gild) *a b c*
P expanded, sulphur-ochreous, marg appendiculate with *V* *St*
 lemon-white, ferruginous within at base *V* slight, fibrillose,
 fugitive *G* adnate with a tooth, pale yellowish clay-colour,
 then vinous-clay
 Single or cæspitose Tasteless or insipid Willows Nov $1\frac{1}{4} \times 1\frac{3}{8} \times \frac{1}{8}$ in

- 692 F conissans** Gill (from its abundant dust-like spores, Gr *konis*, dust) *a b c*

P flat, subdepressed, light yellowish-tan or pale bronzy-ochre
St attenuate downwards, lighter than *P*, ferruginous below,
 base white-villous *G* adnate with a tooth, crowded, fuscous-
 ferruginous *Flesh* white

Densely caespitose Taste and odour none or acid Woods, willows Oct -
 Nov $2\frac{1}{2} \times 4 \times \frac{1}{4}$ in Often passed over as **826**

- 693 F inopus** Karst (from its fibrillose stem, Gr *is*, *inos*, a fibre, *pous*, a foot) *a b c*

P expanded, obtuse, pale yellowish-tan or sulphur, mid sienna
St fistulose, attenuato-rooting, pallid above, sienna-brown below
 within and without, sometimes with a fibrillose *A* when young
G adnate, yellowish-white, pale olive-brown or sulphur-greenish,
 sometimes fuscous *Flesh* paler than *P*

Fasciculate Woods, stumps, fir, larch, rooting amongst pine leaves, on the
 ground, rare Vernal and Aug-Dec $3 \times 8\frac{1}{2} \times \frac{1}{16}$ in Must not be
 confounded with **824**

- 694 F apicrea** Gill (from its taste, Gr *apikros*, not bitter) *a*

P expanded, pale ochreous-tan, mid sienna *St* hollow, colour
 as *P*, fibrillose, ferruginous below *G* adnate or adnato-
 decurrent, ferruginous

Subcaespitose Odour mild Woods, pine, trunks Sept-Oct
 $4\frac{1}{2} \times 3\frac{1}{4} \times \frac{7}{16}$ in

d Sapiuæ

- 695 F hybrida** Gill (from its hybrid characters) *a b c*

P flat, obtuse or subdepressed, tawny-buff, orange or sienna *St*
 attenuate upwards, tan-brownish, brownish below *G* adnate,
 tawny or rufous, unspotted *Flesh* yellowish or brownish

Subcaespitose or in troops Fir, stumps, branches, under beeches, on saw
 dust and wood, rare Aug-Dec $2\frac{1}{8} \times 2\frac{1}{8} \times \frac{1}{4}$ in

- 696 F sapinea** Qué! (from its growing on pine-wood *sapinus*, a
 pine) *a b c*

P flat, golden-tawny or orange-vermilion, mid darker, marg
 appendiculate with white *V* in young examples *St* sulcate,
 orange or fuscous-white above, white or brown below *A*
 fibrillose, fugitive *G* adnate, colour as *P* or tawny-
 cinnamon

Single or caespitose Taste unpleasant, bitter, odour strong, not unpleasant
 Fir stumps, branches, sawdust, wood, in and near woods, sometimes on
 the ground, under beeches and larches Aug-Jan $2\frac{1}{8} \times 3\frac{1}{2} \times \frac{1}{4}$ in
 Var *terrestris* Sacc, fusiform rooting

- 697 F liquiritiæ** Qué! (from its taste of liquorice) *a c*

P flat, subumbonate, bay-brown or orange-tawny, mid darker
St hollow, attenuate upwards, striate, tawny or ferruginous
G adnate or sinuate, golden or tawny

Gregarious or caespitose Taste sweet, odour acid Firs Oct
 $1\frac{1}{8} \times 2\frac{1}{8} \times \frac{3}{16}$ in

698 F *pierea* (Gr *pikros*, bitter) *a b c*

P convex, obtuse, rufous, traces of white V at marg in young examples *St* fistulose, umber, darker at base, when young wholly white-pulverulent *G* adnato-ascending or decurrent, ferruginous

Cæspitose Pine stumps, old deal boards, rare Oct-Dec $2\frac{1}{2} \times 4\frac{3}{8} \times \frac{1}{2}$ in

e Sericellæ

699 F *FILICEA* Sacc (from its habitat, tree-fern stems, *filix*, a fern) *a b c*

P flat, subumbonate, golden-yellow, appendiculate with V *St* stuffed or hollow, fibrillose, colour as *P*, ferruginous below *V* annulate, fibrillose, fugacious, reddish *G* adnate, tawny

Tree ferns in greenhouses Spring and summer $1\frac{1}{8} \times 1\frac{3}{4} \times \frac{1}{8}$ in

700 F *ochrochlora* Karst (from the colour of the pileus Gr *ochros*, yellow, *chloros*, green) *a b*

P plane, subumbonate, subviscid, pale dull olive-ochre, minutely white-squamulose *St* fistulose, paler than *P*, ferruginous at base, white-squamose *V* slight, seen in young examples *G* adnate, olivaceous, then olive-brown

Cæspitose Old trunks, furze roots, hazel sticks Aug-Nov $2\frac{1}{8} \times 2\frac{3}{4} \times \frac{1}{4}$ in

701 F *helomorpha* Quel (from its resemblance to a nail Gr *helos*, a nail, *morphe*, form) *a c*

P convex, gibbous or obtusely umbonate, viscid, white or clay-white *St* solid, smooth, tan-white *G* plano-decurrent, clay-white *Sporis* pale brown

Scattered Wood, fir Nov $\frac{1}{2} \times 1\frac{1}{8} \times \frac{1}{8}$ in

702 F *scamba* Sacc (from the frequently curved stem, Gr *skambos*, bow-legged) *a b*

P plane, subdepressed, viscid in wet weather, whitish or faintly ochreous *St* stuffed, flocculose or mealy, colour as *P* base sometimes faintly rufescent *G* adnate, light clay-yellowish *Flesh* brownish

Gregarious Suspected poisonous Odour strong like 1527 Woods, pine, rotten wood, larch, on the ground, uncommon Sept-Oct $1\frac{1}{8} \times 1\frac{3}{8} \times \frac{1}{8}$ in

XXVIII NAUCORIA Quel

(From the almost obsolete veil, *naucum*, a trifle)

Veil squamulose, fugacious or obsolete *Hymenophore* confluent with, but heterogeneous from the cartilaginous stem *Pileus* more or less fleshy, convex, conical or convexo-plane, becoming flat,

naked, flocculose, squamulose, silky or atomate, margin at first incurved, not usually striate. *Stem* normally central, cartilaginous, fistulose or spongy-stuffed, simple or imperfectly annulate. *Gills* free or adnate, not decurrent. *Spores* ferruginous (Fig 37)

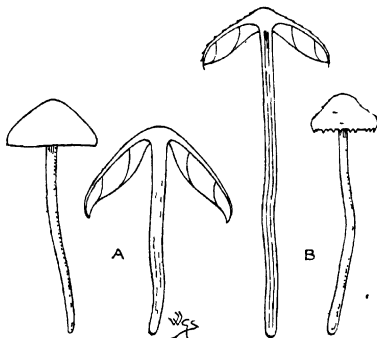


Fig 37 —A, *Naucoria Cucumis* Gill B, *N. porriginosa* Karst
Entire and in section one-half natural size

The species grow on the ground or are epiphytal, sometimes rooting, they are mostly small in size and brown in colour

Naucoria corresponds in structure with *Collybia*, *Leptonia*, and partially with *Psilocybe* and *Panaeolus* Species 703—746

a *Gymnotae* *Pileus* smooth *Veil* obsolete, except 711 and 717
Spores ferruginous, not becoming fuscous-ferruginous, except 712

Gills usually free or slightly adnexed 703—716

Pileus convexo-plane *Gills* usually adnate 717—721

Pileus campanulate, then expanded, except 722 and 723

Gills usually adnate 722—728

b *Phaeotae* *Pileus* naked *Veil* potential, but rarely manifest, when visible, in the form of a fugacious cortina *Gills* and *spores* fuscous-ferruginous

Growing in fields and on plains, except 730 729—734

Growing in moist uncultivated woody places 735—738

c *Lepidotae* *Pileus* flocculose or squamulose *Veil* manifest

Spores ferruginous, except 744

Pileus with separating, superficial squamules 739, 740

Pileus with innate squamules 741—744

Pileus without scales, silky or atomate 745, 746

a Gymnotæ

- 703 N lugubris** Sacc (from its sombre colours, *lugeo*, to mourn) *a*
P expanded, gibbous or subumbonate, sometimes glutinous, ochreous-tan to ferruginous *St* fusiform-rooting, whitish above, ferruginous below *G* ferruginous
 Often cespitose Mountainous fir woods Autumn $2 \times 3\frac{1}{2} \times \frac{3}{8}$ in
 Resembling 229
- 704 N festiva** Bres (*festivus*, handsome) *a b*
P expanded, umbonate, glutinous, brownish-olive, whitish when dry *St* attenuate downwards, buff-white *G* ventricose, crowded, salmon-ferruginous
 Woods, amongst dead leaves and grass Sept $1\frac{1}{2} \times 4 \times \frac{3}{8}$ in
- 705 N obtusa** Sacc (from the obtuse pileus) *a b*
P campanulate, sienna-reddish, becoming pale, marg substrate *St* paler than *P* *V* obsolete *G* adnato-ascending, edge serrulate, colour as *P* or *St*
 On the ground Autumn $1\frac{1}{2} \times 2\frac{1}{2} \times \frac{1}{8}$ in
- 706 N subglobosa** Sacc (from the shape of the pileus) *a c*
P subviscid, yellowish or pale brassy-yellow *St* striate, paler than *P* *G* ascending, ventricose, ochreous flesh-colour
Spores pale pallid
 On the ground Autumn $1 \times 2\frac{1}{2} \times \frac{1}{8}$ in
- 707 N hamadryas** Sacc (from the habitat, Gr *hamadruas*, a wood-nymph) *a b*
P hygrophanous, expanded, gibbous or umbonate, bay-brown-ferruginous becoming buff or ochreous-tan *St* shining silky-fibrillose, whitish-tan, with slight A low down in some young examples *G* sinuato-adnexed, crowded, edge crotched, ferruginous
 Woods, on the ground Nov $2\frac{1}{2} \times 3\frac{1}{4} \times \frac{1}{4}$ in
- 708 N eidas** Sacc (from a fancied resemblance in the pileus to a tiara, Gr *kidas*) *a*
P campanulate, clay-cinnamon to tan *St* attenuate downwards, colour as *P* above, deep sienna-blackish below *G* adnexo-ascending, honey-colour
 Odour none Woods, pine Nov $2\frac{1}{2} \times 3\frac{1}{2} \times \frac{3}{8}$ in
- 709 N Cucumis** Gill (from its frequent odour of cucumber, *Cucumis*) *a b c*
P campanulate, deep chestnut-umber, marg tan-buff, or wholly tan-buff *St* attenuate downwards, bay or rich purple-brown *G* adnexo-ascending, or strongly sinuate, ventricose, tan-buff
Flesh purple-brown
 Odour strong, rank and penetrating of stale or rotten fish, sometimes of cucumber or a combination of fish and cucumber as in the odour of the smelt Woods, fir, grassy places, gardens, sawdust, fragments of wood, frequent Sept-Nov $2\frac{1}{2} \times 2\frac{3}{8} \times \frac{3}{8}$ in See 534

- 710 N ECHINOSPORA** Sacc (from the spinulose spores, *echinus*, a hedgehog) *a b c*
P flat, subumbonate, moist hygrophanous, slightly furfuraceous, buff, then pale, marg substriate *St* brownish-salmon, paler above, rufescent below, white-flocculose *G* sinuate, subdistant, ochre, olive-shaded
 Greenhouses Aug $\frac{1}{2} \times \frac{1}{2} \times \frac{1}{16}$ in
- 711 N anginea** Sacc (from the stem, spotted like a snake, *anguis*) *a b*
P expanded, gibbous, ochreous to tan marg white-zoned with patches of V *St* attenuate upwards, tan above, bay-brown below, white-fibrillose with V *G* adnexo-ascending, pale ferruginous *Flesh* brownish
 Odour none On the ground May-Nov $2\frac{1}{2} \times 3\frac{1}{2} \times \frac{3}{16}$ in
- 712 N centuncula** Gill (from the change of colour in the pileus, *cento*, patchwork) *a*
P plane, often excentric, fuscous-olive to light ochreous-greenish or ashy *St* attenuate upwards, ashy-light-yellowish *G* adnate, thick, colour as *St* *Spores* ochraceous
 Gregarious or caespitose Rotten wood, beech, rare Oct $1 \times 1\frac{1}{2} \times \frac{1}{8}$ in
- 713 N horizontalis** Quel (from the partially horizontal stem) *a b c*
 Watery-cinnamon or rufescent
P convexo-plane, obtuse, subexcentric, splitting *St* curved *G* rounded-free, broad
 In troops Branches, logs, felled trees, elm, rare Dec $\frac{1}{4} \times \frac{1}{2} \times \frac{1}{8}$ in
- 714 N rimulincola** Sacc (from its growing in small cracks of bark *rimula*, a small crack, *incolo*, to inhabit) *a c*
P hemispherical, umbilicate, plicate, subexcentric, deep cinnamon *St* curved, colour as *P* *G* broad, crenulate, whitish-cinnamon *Spores* cinnamon
 Twigs, branches, elmi, pear Oct-Dec $\frac{1}{2} \times \frac{1}{2} \times \frac{1}{16}$ in
- 715 N semiflexa** Sacc (from the slightly curved stem, *semi*, half, *flecto*, to bend) *a*
P convex, subexcentric, chestnut *St* tan *G* adnexed, distant, tawny
 On the ground, on branches Oct $\frac{1}{2} \times \frac{1}{2} \times \frac{1}{16}$ in
- 716 N rubricata** Sacc (from the white pileus tinged with red, *rubrico*, to colour red) *a*
P expanded *St* tan *G* adnexed, whitish to brownish *Spores* pale
 Twigs, bramble Autumn $\frac{1}{2} \times \frac{1}{2} \times \frac{1}{16}$ in
- 717 N abstrusa** Sacc (from its secluded habitat, *abstrusus*, hidden) *a*
P viscid, ferruginous clay-colour, mid brown *St* lustrous, colour as *P*, darker at base *G* crowded, cinnamon *Flesh* pallid ferruginous
 On the ground, woods, sawdust Oct $1\frac{1}{2} \times 2\frac{1}{2} \times \frac{1}{8}$ in

718 N innocua Sacc (*innocuus*, harmless) *a*

P striate, pale ochreous-rufous to rufous, pale when dry *St* tan-flesh-colour, white-fibrillose, base woolly *G* light yellow-ochreous *Spores* rubiginous

Damp places Autumn $1\frac{1}{2} \times 1\frac{1}{2} \times \frac{1}{8}$ in

719 N cerodes Quel (from its waxy appearance, Gr *keros*, wax) *a c*

P depressed, striate, watery-cinnamon to tan *St* pallid above, brown below *G* adnate or adnexed, cinnamon

Gregarious Woods, amongst moss, on the ground, on burnt earth May-Sept $1\frac{3}{8} \times 1\frac{3}{8} \times \frac{1}{8}$ in

720 N melinoides Quel (from its resemblance to honey in colour, Gr *mel*, honey, *eidos*, appearance) *a b c*

P obtuse, striate, shining, ochreous to sienna-ochreous *St* paler than *P*, whitish at top and bottom *G* crowded, somewhat tawny

Lawns, pastures, roadsides June-Nov $1\frac{1}{2} \times 1\frac{1}{2} \times \frac{1}{8}$ in

721 N pusio Gill (from its small size, *pusus*, a little boy) *a*

P subviscid, shining, yellow, tawny or lemon *St* subviscid, lemon *G* crowded, watery-cinnamon

On the ground, amongst moss, grass Autumn $\frac{1}{2} \times 1\frac{1}{2} \times \frac{1}{8}$ in

722 N nucea Sacc (from the shape and colour, *nux*, a nut) *a*

P globose, lobed, umbilicate, pale chestnut, marg strongly incurved *St* bulbous, silky-fibrillose, then even, white *G* adnexo-free, often waved, cinnamon

Woods, pine, amongst heath and furze, rare Autumn $\frac{3}{4} \times 3\frac{1}{2} \times \frac{1}{8}$ in

723 N glandiformis Sacc (from the shape of the pileus, *glans*, an acorn) *a b*

P at length hemispherical, obtuse or slightly depressed, lobed, tan, sienna-shaded, marg strongly incurved *St* equal, striate, twisted, splitting, pale brownish-tan *G* adnexo-ascending, broad, crowded, serrate, whitish-umber

On the ground Oct $1\frac{1}{2} \times 3\frac{1}{2} \times \frac{1}{8}$ in

724 N scolecina Quel (from the flexuous stem, Gr *skolex*, a worm) *a b*

P sometimes umbonate, bay-brown-ferruginous, paler at the striate marg *St* whitish above, fuscous below, at first wholly white-mealy *G* subdistant, ferruginous

Dead leaves, moist ground under alders Sept $\frac{3}{4} \times 1\frac{3}{4} \times \frac{1}{8}$ in

725 N striæpes Sacc (from the striate stem, *pus*, a foot) *a b*

P obtuse, sometimes rugulose or lacunose, ochreous *St* brittle, white *G* adnexo-ascending, serrate, crowded, tawny-ferruginous

Gregarious or caespitose Lawns, amongst grass on soil heaps Nov $1\frac{1}{2} \times 3\frac{1}{2} \times \frac{1}{8}$ Perhaps a var of 723

726 N sideroides Gill (from the colour of the stem, like oxide of iron, Gr *sideros*, iron, *oidos*, appearance) *a c*

P subumbonate, subviscid, pale yellowish to cinnamon, marg slightly striate *St* slightly attenuate downwards, white above, becoming yellowish or ferruginous *G* with a tooth, somewhat cinnamon

Stumps, trunks, chips, ash, rare Oct–Nov $1\frac{1}{4} \times 2\frac{1}{2} \times \frac{1}{8}$ in

727 N badipes Sacc (from the brown stem, *badius*, bay-brown, *pes*, a foot) *a b*

P umbonate, tan to cinnamon, mid darker, marg striate *St* ferruginous, fuscous-blackish below, base white-floccose *G* ventricose, pale yellowish-ferruginous

Under larches Oct–Nov $1\frac{1}{8} \times 3 \times \frac{1}{8}$ in

728 N nasuta Sacc (from the shape of the umbo *nasutus*, with a conspicuous nose) *a b*

P acutely umbonate ochreous to citron- or greenish-ochreous marg striate, mid orange or sienna *St* equal, flexuous, smooth, even, yellow, ferruginous below *G* broadly adnate, then rounded adnate, subcrowded pallid, then brownish *Flesh* thin, citron-lemon, ferruginous in *St*

Gregarious Swampy places under trees Autumn $1\frac{1}{2} \times 1\frac{7}{8} \times \frac{1}{8}$ in
Massee regards the British form as a distinct species *N. hydropfila*

b Phaeta

729 N vervacti Quél (from its habitat *vervactum*, fallow ground) *a c*

P plane, subviscid, light yellow mid darker *St* smooth, whitish *G* adnate, toothed, ferruginous-fuscous *Flesh* white

Pastures, gardens, uncommon May–Nov $1\frac{1}{2} \times 1\frac{1}{2} \times \frac{1}{4}$ in

730 N triseopus Sacc (from the hair-like stem, Gr *thrix*, a hair, *pous*, a foot) *a*

P convexo-plane, umbonate, bay-brown to ochreous *St* flexuous, ferruginous *G* adnate or adnexed, subcrowded, dark ferruginous

Copses, rotten wood, old wood in cellars Autumn $\frac{1}{2} \times 1\frac{1}{8} \times \frac{1}{2}$ in

731 N pediades Quél (from its frequent habitat, Gr *pedion*, a plain) *a b c*

P plane, obtuse, rimoso-rivulose, yellow or somewhat buff *St* with a small basal bulb, colour as *P*, paler above and below *G* adnexed or adnate, subdistant, dull cinnamon *Flesh* whitish

Pastures, lawns, roadsides, etc, frequent July–Nov $1\frac{1}{2} \times 2\frac{1}{8} \times \frac{1}{8}$ in

732 N arvalis Quél (from its habitat, *arvum*, a cultivated field) *a b c*

P plane, subviscid, subrugose, tan-buff *St* enlarged downwards, rooting, or branched-rooting, colour as *P*, furnished with an arachnoid A, when young *G* adnexo-sinuate, subdistant, warm-umber

Taste disagreeable On the ground, sea sands July $1\frac{1}{2} \times 1\frac{1}{8} \times \frac{1}{8}$ in
Rooting base $1\frac{1}{2}$ in

- 733 N semiorbicularis** Quél (from the hemispherical pileus, *semi*, half, *orbicularis*, round) *a b c*

P smooth, viscid, corrugate when dry, tawny-ferruginous to tan
St pallid-ferruginous or tan, rarely with trace of A *G* adnate, subrounded or sinuate, ferruginous

Pastures, roadsides, etc, examples in Brit Mus from interior of skull of a stranded whale, common June–Nov $1\frac{1}{8} \times 2\frac{1}{4} \times \frac{1}{8}$ in

- 734 N tabacina** Gill (from the colour of the pileus as of tobacco, *tabacum*) *a* Bay-brown-fuscous

P plane, subobtuse, hygrophanous, traces of V at marg
St lighter above, darker below *G* adnate or adnexed

Subcespitose Waysides, amongst short grass Autumn $\frac{3}{4} \times 1\frac{1}{4} \times \frac{1}{8}$ in

- 735 N tenax** Gill (*tenax*, tough) *a b c*

P expanded, obtusely umbonate, viscid, cinnamon or shaded olive, fuscous or pale fuscous-slate *St* adpressedly fibrillose, light-yellowish to slate-white *G* adnate, subcrowded, whitish-fuscous

Fields, amongst sticks Oct $1 \times 2\frac{1}{4} \times \frac{1}{8}$ in

- 736 N Myosotis** Quél (from its growing in wet places with forget-me-not, *Myosotis*) *a b*

P expanded, umbonate, viscid, olivaceous or olive-brownish, becoming light, marg striate, cortinate with white V
St often flexuous, fibrillose, white above, brownish below, sometimes with a fugitive A *G* adnate with a tooth, subdistant, brown-ferruginous, with a serrate white edge

Bogs with *Myosotis* and *Potentilla Comarum* July–Aug $2\frac{1}{4} \times 5\frac{3}{8} \times \frac{1}{4}$ in
 Very variable

- 737 N temulenta** Quél (from the bibulous substance and flexuous stem, *temulentus*, drunken) *a b*

P expanded, subumbonate, moist, ferruginous or reddish, ochreous or whitish when dry, marg striate *St* pale dull orange or reddish, white at base *G* adnate, subdistant, attenuate in front, reddish

Woods, open moist places Aug–Sept $1\frac{1}{2} \times 2\frac{1}{2} \times \frac{1}{8}$ in

- 738 N latissima** Sacc (from the very broad gills, *latissimus*, very broad) *a b c*

P hemispherical, umber, orange-sienna-shaded, or orange-yellow, mid flat *St* greatly attenuate downwards, tan with a brownish base *G* rounded adnate, separating, greyish then brown

Amongst grass Sept $1\frac{1}{8} \times 2\frac{1}{8} \times \frac{3}{16}$ in Pileus sometimes $1\frac{3}{4}$ in in diam The mycelium forms an earthy ball at base of stem

c Lepidota

- 739 N porriginosa** Karst (from the scurfy pileus *porriginosus*, full of scurf) *a b*

P expanded, obtuse or subumbonate, dull yellow, clad with saffron flocci, marg appendiculate with V *St* silky, then

smooth, whitish above and below, mid ochreous *G* adnate, cinnamon *Flesh* lemon-white

Amongst twigs and rubbish Oct $2 \times 4 \times \frac{3}{16}$ in

- 740** *N sobria* Gill (from its not being hygrophanous, *sobrius*, sober) *a c*

P convex, obtuse or subumbonate, honey-colour *V* appendiculate at marg, fugacious *St* tan above, ferruginous below, sometimes white spotted with *V* *G* adnate, paler than *P*

Woods, mixed, on the ground July–Oct $\frac{7}{8} \times 1\frac{3}{8} \times \frac{1}{8}$ in Var *dispersa*
Sacc is half the size of type

- 741** *N erinacea* Gill (from the bristly pileus, *erinaceus*, a hedgehog) *a b c*

P expanded, depressed or umbilicate, umber or sienna *St* shaggy, deep sienna, lighter above and below *G* adnate with a tooth, clay-umber

Solitary Taste insipid Dead branches, rare Jan–Dec $1 \times \frac{1}{2} \times \frac{1}{8}$ in
Often difficult to see, being exactly the colour of the bark matrix to which it is frequently adpressed

- 742** *N siparia* Gill (from the covering formed by the veil, *siparium*, a small curtain) *a* Rufous-ferruginous, upper part of *St* and *G* somewhat paler

P convex, densely villososquamulose *V* appendiculate at marg *St* villosos-downy, except upper part *G* adnate

Wood, earth, dead fern-stems, caddis worm cases, twigs, rare July–Oct $\frac{1}{2} \times 1\frac{1}{8} \times \frac{1}{16}$ in Often differs greatly in length of stem from 741

- 743** *N conspersa* Quél (from the besprinkled scales of the pileus, *conspersus*, besprinkled) *a b c*

P convex, hygrophanous, bay-brown or crimson-shaded *St* fibrillose, cinnamon or ochreous *G* adnate, crowded, dark cinnamon

Gregarious On the ground or amongst dead leaves and *Sphagnum* in woods, uncommon Sept–Oct $\frac{7}{8} \times \frac{1}{2} \times \frac{1}{16}$ in

- 744** *N escharoides* Quél (from the scurfy pileus, Gr *eschara*, a scar, *eidōs*, appearance) *a b*

P campanulate, obtuse, umbonate or umbilicate, tan or whitish, mid ochreous or fuscous, with an evanescent white *V* *St* adpressedly fibrillose, then smooth, pallid or pale ochre to fuscous *G* adnate with a tooth or emarginato-free, somewhat cinnamon, with a pale edge

Gregarious, subcaespitose Bare damp ground, under alders Aug–Oct $\frac{7}{8} \times 1\frac{1}{2} \times \frac{1}{16}$ in

- 745** *N carpophila* Quél (from its growing on fruit, beech-mast, etc, Gr *karpōs*, fruit, *philos*, loving) *a*

P convex, obtuse, furfuraceous, atomate, tan-whitish *St* furfuraceous, then naked, pallid *G* adnexo-rounded or adnate, ochreous

Beech mast, leaves, etc, rare Sept–Oct $\frac{3}{16} \times \frac{3}{4} \times \frac{1}{16}$ in

746 N *graminicola* Gill (from its habitat, *gramen*, grass, *colo*, to inhabit) *a c*

P convex, sometimes papillate, shaggy-tomentose, fuscous to fawn-ochraceous *St* hirsute, fuscous *G* slightly adnexed, pallid ochreous

Decaying rushes, straw, grass, twigs Oct $\frac{3}{8} \times 1\frac{1}{2} \times \frac{1}{32}$ in The stem is rarely branched

XXIX GALERA Qué!

(From the shape of the pileus, *galerus*, a cap)

Vul fibrillose or obsolete *Hymenophore* confluent with, but heterogeneous from the cartilaginous stem *Pileus* more or less membranous, conical or semi-ovate, sometimes expanding, margin striate, at first straight and adpressed to the stem *Stem* central,

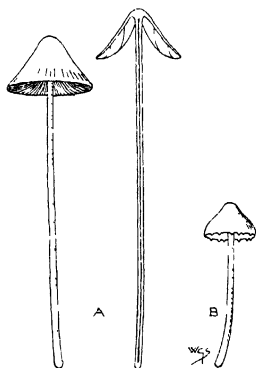


Fig 33 —A *Galera tenera* Quel entire and in section B *G ravidula* Quel
One half natural size

somewhat cartilaginous and, except **752**, fistulose, simple or imperfectly annulate *Gills* adnate or with a decurrent tooth, or adnexed and becoming almost free *Spores* elliptical, smooth, ochreous-ferruginous or tawny-ochreous (Fig 38)

The species are usually small, slender, tender and fragile, they grow on the ground or amongst moss Mostly autumnal

Galera agrees in structure with *Mycena*, *Nolana*, *Psathyra* and *Psathyrella*

Species **746a—761**

- a. Conocephalæ* *Veil* obsolete *Pileus* usually conico-campanulate, hygrophanous, somewhat even, when dry dotted with soft particles *Stem* tense and straight *Gills* ascending, inserted at the top of the cone, somewhat crowded

746a—754

- b Bryogenæ* *Veil* cortinate, fugacious *Pileus* membranous, campanulate, striate, smooth, hygrophanous, even when dry, opaque, very slightly silky *Stem* thin, lax, flexible, slender *Gills* broadly and planely adnate, broad, somewhat denticulate *Habitat* amongst moss except

755—759

- c Erodermeæ* *Vel* manifest, superficial, separating, at first chiefly round the margin, silky and squamulose *Pileus* somewhat membranous

760, 761

a Conocephalæ

- 746a G apala** Quel (from its habitat, rich pastures, not marshes as in some allied plants, *a* without, *palus*, a marsh) *a c*

P obtusely campanulate, submembranous, smooth, hygrophanous, somewhat pale warm brown, or pallid-livid to white *St* hollow, attenuate upwards, fragile, velvety, white *G* almost free, somewhat narrow, ventricose, pale whitish-ochre

In rich grassy places Sept $7\frac{1}{8} \times 2\frac{1}{4} \times \frac{1}{8}$ in The form *Sphaerobasis* has a smooth stem and bulbous base

- 747 G lateritia** Quel (from its reddish-brick-colour, *later*, a brick) *a b c*

P conico-cylindrical, membranous, pale yellowish to ochreous-brown, marg striate when moist *St* shining-whitish or paler than *P*, white-pruinose *G* adnexo-ascending, cinnamon

Rich pastures, grassy places, rare June-Oct $1 \times 4\frac{1}{2} \times \frac{1}{8}$ in

- 748 G tenera** Quel (*tener*, tender) *a b c*

P submembranous, deep buff or ferruginous to whitish, marg striate when moist *St* shining, striate above, colour as *P* *G* adnato-ascending, cinnamon

Pastures, gardens, flower pots, roadsides, grassy places in woods, common April-Dec $1\frac{1}{4} \times 4\frac{1}{2} \times \frac{1}{8}$ in Var *filosella* Karst *P* pubescent, rotten wood

- 749 G siliginea** Quel (from the colour, like bread, *siligineus*, wheaten) *a b*

P campanulate, smooth, membranous, whitish to sienna-bay, when dry whitish and atomate-sparkling, mid sometimes brown *St* subpruinose, tan-whitish, lilac or purplish, darker below *G* adnato-ascending, subdistant, ochreous then bright cinnamon

Taste none, odour strong Amongst short grass, road scrapings Oct $1 \times 2\frac{1}{2} \times \frac{1}{8}$ in *G campanulata* Mass is a form of this

- 750 G ovalis** Gill (from the semi-oval pileus) *a b c*
P ferruginous to dull yellowish *St* colour as *P*, at first imperfectly annulate *G* adnexo-ascending or free, ferruginous
 Amongst grass, on dung, uncommon Sept–Oct $1\frac{1}{2} \times 4\frac{1}{2} \times \frac{1}{2}$ in
- 751 G antipus** Quél (from the sinuous, rooting base differing from the straight stem, Gr *anti*, opposite, *pous*, a foot) *a b c*
P expanded, hygrophanous, atomate, deep ochreous to whitish, marg paler *St* attenuate below, the rooting base long, tortuous, tan-ochreous, sometimes with an imperfect A *G* adnexo-ascending, cinnamon *Spores* rubiginous
 Single Gardens dung, newly made lawn, rare Mar–Aug $1\frac{3}{8} \times 2\frac{1}{4} \times \frac{1}{8}$ in
 Rooting base 2 in
- 752 G CONFERTA** Gill (from the crowded habit, *confertus*, crowded) *a*
P somewhat acutely pointed, white, mid yellowish-brown *St* solid, shining white *V* downy, fugitive *G* ascending, adnexed or free, crowded, pale brownish *Spores* fuscous-ferruginous
 Cespitose. Amongst tan in hothouses Nov Withering and becoming like soft paper in decay Resembles 41 in habit
- 752a G SPICULA** Quél (from the atomate pileus, *spiculum*, a little hard point) *b*
P membranous, conico-campanulate, then expanded, smooth, hygrophanous, striate when moist, flocculose and atomate when dry, brown ochre *St* hollow, thickened below, densely white-floccose *G* adnate, ventricose, ochreous then cinnamon
 Coco nut fibre Nov $\frac{3}{4} \times 1 \times \frac{1}{8}$ in
- 753 G sparteæ** Quél (from the rigid grass-like stem, *spartum*, esparto-grass) *a b*
P expanded, ferruginous-cinnamon, becoming paler marg striate when moist *St* smooth, whitish *G* adnate, darker than *P*
 Gregarious Amongst short grass and moss Sept $\frac{1}{2} \times 2\frac{1}{2} \times \frac{1}{2}$ in
 Sometimes wholly whitish orange
- 754 G pygmæoaffinis** Quél (from its resembling *Naucoria pygmaea*, but differing in the elongate stem) *a b*
P flat, reticulato-wrinkled fuscous, honey-colour or tan *St* shining-white *G* adnexo-free, ferruginous-ochreous
 Tree shaded walks, amongst grass, in a cucumber house, base of trunks
 Nov $1\frac{3}{8} \times 2\frac{1}{2} \times \frac{1}{8}$ in

b Bryogenæ

- 755 G vittæformis** Quél (from a fancied resemblance in the striate margin to a head-band or chaplet, *vitta*) *a*
P brown, mid sometimes paler *St* bright rusty-brownish *V* almost obsolete *G* adnato-ascending, colour as *St*
 Amongst moss Nov $\frac{1}{4} \times 2\frac{3}{4} \times \frac{1}{8}$ in

756. *G. rubiginosa* Gill (from the dark ferruginous stem, *rubigo*, rust) *a c*

P wholly striate, cinnamon or honey colour to tan, mid darker
G adnato-ascending, distant, ochreous

Amongst moss Sept–Oct $1\frac{1}{2} \times 2\frac{3}{4} \times \frac{1}{8}$ in

757 *G. hypnorum* Quel (from its growing on moss, *Hypnum*, a genus of mosses) *a b c*

P campanulato-expanded, obtuse or umbonate, pale ochre or pale sienna to tan, mid darker *St* sienna below, paler and white-pruinose above *G* ventricose, distant, cinnamon-tawny

Odour very strong, alkaline Amongst mosses and hepatics in woods
 May–Nov $1 \times 4 \times \frac{1}{8}$ in Var *bryorum* Gill Larger than type
 Var *sphagnorum* Quel On *Sphagnum* in swamps

758 *G. mniophila* Gill (from its growing on moss, *Gr mniun*, moss, *philos*, loving) *a*

P subpapillate, fuscous-light-yellowish to clay-colour *St* fibrillose, mealy above, floccose below, yellow *G* adnato-ascending, fuscous-clay-colour

On moss Sept–Oct $\frac{5}{8} \times 3\frac{1}{4} \times \frac{1}{8}$ in

759 *G. minuta* Quel (from its very small size) *a*

P tan-ochreous *St* tawny, base forming a small white disc
G triangular, adnate, clay-colour, edge whitish

Decayed wood, amongst moss Sept–Oct $\frac{1}{8} \times \frac{3}{8} \times \frac{1}{4}$ in

c Eriodermeæ

760 *G. ravidia* Quel (*ratus*, grey) *a*

P tan-greyish or tan-umber marg appendiculate with white V
St pallid, white-silky *G* adnexed, ventricose, ochreous-salmon

Gregarious On the ground, amongst chips and rotten wood Autumn
 $1\frac{1}{2} \times 2\frac{1}{2} \times \frac{1}{8}$ in

761 *G. mycenopsis* Quel (from its resemblance to a *Mycena*, *Gr opsis*, resemblance) *a*

P expanded, umbonate, pale honey-colour, marg appendiculate with white V *St* white-yellowish white silky *G* adnexed, ventricose, yellowish

On *Sphagnum*, marshy ground Aug–Oct $1\frac{1}{2} \times 4\frac{3}{8} \times \frac{1}{8}$ in Somewhat like 350

XXX TUBARIA Gill

(From the trumpet-shape of typical species, *tuba*, a trumpet)

Vel universal, floccose at margin of pileus *Hymenophore* confluent with, but heterogeneous from the cartilaginous stem *Pileus* submembranaceous, sometimes umbilicate or depressed, margin—except

770—striate Stem central, subcartilaginous, fistulose, simple or imperfectly annulate Gills subdecurrent, broadest behind and

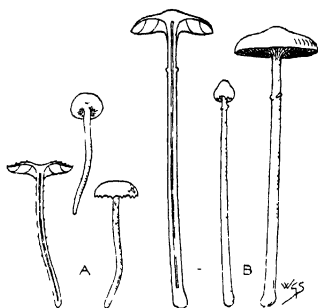


Fig. 3) — *Tubaria furfuracea* Gill B *T. fulva* Karst
Entire and in section One half natural size

somewhat triangular Spores ferruginous or fuscous-ferruginous (Fig 39)

The species are all small, some grow on the ground, others on mosses, twigs, chips, leaves, etc

Tubaria agrees in its chief structural characters with *Omphalia* and *Ecclia* Species 762—771

a *Genuina* Spores ferruginous 762—768

b *Phaeota* Spores fuscous-ferruginous 769—771

a *Genuina*

762 *T. cupularis* Gill (from the shape of the pileus *cupularis*, cup-shaped) a

P plano-depressed, hygrophanous, smooth, rufescent to light yellowish St whitish or faintly ochreous G serrulate, reddish

Mountainous heaths, amongst grass Aug—Sept $1\frac{1}{2} \times 2 \times \frac{1}{16}$ in

763 *T. furfuracea* Gill (from the scurfy pileus, *furfur*, bran) a v c

P flat, umbilicate, cinnamon to tan-whitish, marg substrate when moist, appendiculate with white-squamulose V St floccose, colour as P, villous at base G subdecurrent, bright cinnamon or clay

Gregarious Tasteless or pleasant Thatch, chips, twigs, wood, shavings, ivy, humus Jan—Dec $1\frac{1}{8} \times 1\frac{1}{4} \times \frac{1}{8}$ in Polymorphous Var *trigonophylla* Sacc Smaller than type, G triangular Var *heterosticha* Karst P depressed, umbonate

- 764 T paludosa** Karst (from its habitat, *palus*, a marsh) *a b*
P expanded, papillate, sometimes striate, pale yellowish-fuscescent to whitish *St* colour as *P*, flocculose above, white-villous below *G* adnato-decurrent, paler than *P*
 Amongst *Sphagnum* May-Sept $1\frac{1}{2} \times 3\frac{3}{4} \times \frac{1}{8}$ in
- 765 T stagnina** Gill (from its habitat, *stagnum*, a swamp) *a b*
P expanded, brown, or somewhat pale and ochreous, margin white-scaly with *V* *St* attenuate below, rubiginous *G* adnato-decurrent, broad, ferruginous
 Amongst *Sphagnum* in bogs Sept $1 \times 4 \times \frac{1}{8}$ in
- 766 T pellucida** Gill (from the translucent pileus, *pellucidus*, transparent) *a b*
P campanulate, umbonate, cinnamon to ochreous-tan, margin striate, silky-squamulose with *V* *St* shining, paler than *P*, pruinose above *G* adnato-decurrent, subtriangular, colour as *P*, faintly sienna-tinted
 Roadsides, amongst leaves Autumn $\frac{7}{8} \times 1\frac{3}{4} \times \frac{1}{8}$ in
- 767 T embolus** Karst (from the wedge-shaped gills, Gr *embolos*, a wedge) *a b c*
P expanded, obtuse, pale yellowish-tawny to ochreous-tan *St* attenuate downwards, smooth, naked, paler than *P* *G* thick, very distant, separating from hymenophore, bright tawny-cinnamon
 Damp heath ground, amongst moss and grass, rare June-Nov $\frac{5}{8} \times 2 \times \frac{1}{8}$ in
 Stem sometimes drawn up abnormally amongst grass
- 768 T autochthona** Sacc (from its terrestrial habit, Gr *autos*, self, *chthon*, the earth) *a b c*
P flat, ochreous-white, margin flocculose with *V* *St* paler than *P*, base white *G* adnato-toothed, honey-colour
 On the ground, amongst grass July-Oct $1 \times 1\frac{1}{2} \times \frac{1}{8}$ in

b Phætie

- 769 T muscorum** Gill (from its growing on moss, *muscus*) *a b*
P expanded, subdepressed, tawny-yellow, mid sienna *St* colour as *P* *G* horizontal, adnate with a decurrent tooth, paler than *P*
 Amongst mosses on heaths, on tree trunks July $\frac{5}{8} \times 2\frac{1}{2} \times \frac{1}{8}$ in
- 770 T erobulus** Karst (from a fancied resemblance in the pileus to a knot of hair on the crown of the head, Gr *krobulos*) *a*
P expanded, obtuse, sienna- to whitish-tan, white-floccose with *V*, then naked *St* white-floccose, sometimes subannulate
G adnato-decurrent, crowded, fuscous-ferruginous
 Amongst sticks, chips Sept-Oct $1 \times 1\frac{1}{2} \times \frac{1}{8}$ in
- 771 T inquilina** Gill (from its growing on other substances, *inquiliuus*, a lodger) *a b c*
P plane, depressed, broadly umbonate, viscid when moist, yellowish-sienna, becoming pale, margin striate, sienna *St*

attenuate downwards, paler than P, white-fibrillose, base white-floccose G adnato decurrent, subdistant, umber

Gregarious Grass, ferns stalks, chips, common May-Oct $\frac{1}{2} \times 1\frac{1}{2} \times \frac{1}{8}$ in
Must not be confounded with 858 or 860 Var *ecbola* Karst Stem rooting, roots of grasses

XXXI CREPIDOTUS Quel

(From the shape of some of the species, Gr *krepis*, a slipper)

Veil obsolete *Hymenophore* confluent and homogeneous with the fleshy stem *Pileus* excentric, lateral or resupinate, commonly thin and with soft flesh *Stem* lateral, simple or absent *Gills*



Fig 40 — A *Crepidotus applanatus* Karst One half natural size
B *C. cyathus* Quel Twice natural size
Entire and in section

more or less decurrent, reaching the stem or axis, or radiating from an excentric point *Spores* pale ferruginous or cinnamon (Fig 40)

The species, except 784, grow on wood, trunks, twigs, grass, moss, etc, they are mostly small in size

Crepidotus agrees in structure with *Pleurotus* and *Claudopus*

Species 772—785

772 **C palmatus** Gill (from a fancied resemblance in the pileus to the palm of the hand) *a c*

P fleshy, convex, expanded, smooth, ferruginous to warm brownish-buff *St* solid, excentric or lateral, curved, smooth, whitish *G* rounded, subdistant, brownish-buff

Trunks Oct $5 \times 1\frac{1}{2} \times \frac{1}{2}$ in

773 **C alveolus** Quel (from a fancied resemblance, when inverted, to a little trough, *alveus*, a trough) *a c*

P obovate, dimidiate, ochreous-fuscescent *St* a villous base *G* subdecurrent on base, clay-fuscescent

Stumps, oak, rare Aug-Nov Diam 2 in

774. **C mollis** Quel (*mollis*, soft) *a b c*

P obovate, dimidiate, pale yellowish-tan, marg at first incurved, then undulate *St* a strigose base *G* rounded on base, sometimes broad, cinnamon

Stumps, poplar, willow, pear, sticks, logs, sawdust, squared timber, humus, common May-Dec Diam $2\frac{1}{2}$ in

775 C applanatus Karst (from the plane pileus) *a c*

P reniform, watery, pale cinnamon to whitish, marg substriate when moist *St* when present white-tomentose *G* subrounded, watery-cinnamon or ochreous

Decaying wood Oct $1\frac{1}{2} \times \frac{1}{2} \times \frac{1}{4}$ in Much like 1444 in appearance

776 C calolepis Karst (from the beautiful scales of the pileus, *Gr kalos*, beautiful, *lepis*, a scale) *a b*

P reniform, pale dull-ochreous, rufescent-scaly *St* a small villous base *G* rounded on base, pale brown then fuscous-ferruginous

Dead wood, poplar Oct Diam $1\frac{1}{2}$ in, sometimes $2\frac{1}{2}$ in

777 C haustellaris Karst (from its watery substance *haustellaris*, a drawer of water) *a*

P obovate or reniform, pale yellowish-tan, then paler *St* excentric, slightly attenuate upwards, white *G* rounded, adnexed, fuscous-cinnamon

Gregarious Dead trunks, poplar, rare $1 \times \frac{1}{2} \times \frac{1}{8}$ in

778 C Rubi (from its habitat, *Rubus*, bramble) *a c*

P obovate or reniform, crystalline-mealy, yellow to livid-grey, then pallid *St* excentric, whitish, strigose at base *G* subdecurrent, brown *Spores* brown

Gregarious, uncommon July-Oct $\frac{5}{16} \times \frac{1}{2} \times \frac{1}{16}$ in

779 C chimonophilus Sacc (from its time of growth, *Gr chaimon*, winter, *philos*, loving) *a*

P circular, convex, white, villous-downy *St* excentric, almost obsolete, white *G* subdecurrent on base, few, distant, pale yellow-brown *Spores* pale yellow-brown

Dead leaves, *Pinus terminalis*, logs Dec Diam $\frac{1}{2}$ in

780 C epibryus Quel (from its frequent habitat, moss *Gr epi*, upon, *bryon*, moss) *a c*

P resupinate, at first cup-like, sessile, membranous, white *G* rounded to a central or excentric axis, pale yellowish

Mosses, grass, leaves, holly, *Vaccinium* Oct Diam $\frac{3}{16}$ in

781 C Phillipsii Sacc (after William Phillips, mycologist) *a b c*

P ovate, expanded, smooth, pale umber, marg striate *St* curved, colour as *P* *G* rounded-adnate, paler than *P*

Dead grass May-Oct $\frac{1}{4} \times \frac{1}{2} \times \frac{3}{32}$ in

782 C proboscoides Gill (from the trunk-like stem, *Gr proboskis*, a snout) *a b*

P obovate, pendulous, scabrous-spotted, pale sepia, marg incurved *St* attenuate to base, inserted on and darker than *P*, shaded umber-sienna *G* inferior, adnate, rounded to an excentric axis, flesh-colour

Pendulous from a wooden ceiling Dec $8 \times 8 \times \frac{1}{16}$ in

783 C pezizoides Gill (from its resemblance to certain cup-fungi of the genus *Peziza*) *a*

P resupinate, saucer-shaped, then reflexed, sessile, mealy, whitish *G* radiating from a central axis, tawny

Gregarious Rotten branches, rare Diam $\frac{1}{2}$ in

784 C epigæus Sacc (from its growing on the ground, Gr *epigaios*, upon the earth) *a*

P subreniform, becoming horizontal, fragile, reddish-grey *St* a villous lateral base *G* rounded on base, watery, rufescent

On marlstone clay Nov Diam $1\frac{1}{2}$ in

785 C Ralfsii Sacc (after J Ralfs) *a b c*

P reniform, horizontal, slightly hispid-furfuraceous, yellow

St almost obsolete *G* rounded to a lateral base, clay-colour, edge whitish

Decaying wood, dead branches March Diam $\frac{1}{2}$ in

785a C putrigenus Sacc (from its habitat, rotten logs, *puter*, putrid, *gigno*, to bear) *a c*

P membranous, dimidiate or reniform, pubescent, whitish, marg substrate, base villose *G* broad, irregular, unequal, whitish, then coloured by the ferruginous-brown spores

Gregarious, or imbricate, in close clusters, closely sessile Damp or putrid logs, beech Sept *P* $\frac{1}{4} \times \frac{3}{8}$ in

SLRIES IV PRATELLÆ F1

(From the habitat, *pratium*, a meadow)

Spores typically black-purple or fuscous purple, often fuscous, brown-black or dark brown Genera XXXII—XXXVIII

XXXII CHITONIA Karst

(From the veil which in infancy covers the plant like a cloak, Gr *chiton*, a tunic)

Vul universal, separate from the pileus and remaining as a volva at the base of the stem *Hymenophore* distinct from the fleshy



Fig. 41 —Section of *Chitonina rubricaps* Sacc
One half natural size

stem *Pileus* subfleshy *Stem* central, simple, hollow, volvate *Gills* free *Spores* fuscous-purple (Fig 41)

Represented only by one introduced species

Chitonia agrees in structure with *Amanitopsis*, *Volvaria* and *Acetabularia* Species 786

786 C RUBRICEPS Sacc (from the red pileus, *ruber*, red, *caput*, the head) a

P expanded, umbonate, smooth, even, brick-red *St* rooting, dull pale reddish-ochreous, paler below *Vo* large, sheathing, saccate, torn at edge *G* subcrowded, purplish-brown

Soil in an aroid house Dec $1\frac{3}{8} \times 3\frac{1}{2} \times \frac{1}{8}$ in

XXXIII PSALLIOTA Qué1

(From the annulus, Gr *psalion*, a ring)

Vel universal, concrete with the cuticle of the pileus and forming an annulus on the stem *Hymenophori* distinct from the fleshy stem *Pileus* fleshy *Stem* central, fibrous fleshy, annulate *Gills*

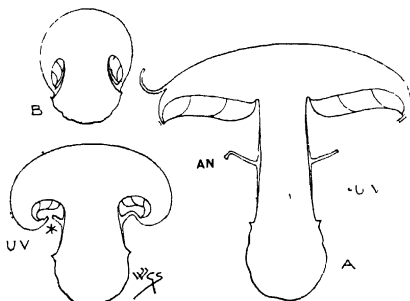


Fig 42—*Psalliota campestris* Qué1 In section Half natural size
A full grown example AN annulus UV universal veil B young example
showing universal veil C half grown example showing rupture of veil at *

free, at first whitish, then frequently salmon-colour, at length deep purple-brown *Spores* dark brownish-purple, brown or reddish-purple (Fig 42)

All the species grow on the ground and are late æstival or autumnal, rarely vernal, they mostly grow in rich pastures and on manured ground, sometimes in woods, a non-British species, *Agaricus geniculatus* Briz, grows on wood

Several species are valued for their esculent qualities

Psalliota agrees in structure with *Lepiota*, *Annularia* and *Togaria* Species 787—800

a *Edules* Larger, fleshy Edible 787—794

b *Minores* Usually smaller, thinly fleshy Not used as food 795—800

a Edules

787 P augusta Quel (from its appearance, *augustus*, noble) *a b*

P expanded, fibrilloso-squamose, rich ochreous-brownish, marg almost white, sometimes appendiculate with V *St* solid, enlarged below, tan, faintly sienna below *G* crowded, faintly brownish

An inferior esculent Orchards, woods, under spruce firs, on ant hills
Aug-Sept $7 \times 6\frac{1}{2} \times 1\frac{1}{2}$ in Might when young be mistaken for a *Lepiota*

788 P Elvensis Henn (from its place of growth when first named, near the River Elwy, N Wales, 1863) *a b*

P expanded, fibrilloso-scaly, warm brown with darker scales
St solid, equal or attenuate downwards, fibrillose, paler than *P*
A large *G* brownish flesh-colour *Flesh* changing to red or pale rose when cut

Sometimes crispitose Under oaks, beech, fir Aug-Sept $6\frac{1}{2} \times 5 \times 1\frac{1}{2}$ in
A drawing in Brit Mus is dated 1847

789 P arvensis Quel (from its habitat, *arvum*, a cultivated field) *a b c*

P at length flat, floccose, silky or squamulose, whitish, mid faintly yellowish, marg ragged with V *St* hollow, attenuate upwards, even, smooth, white *A* large *G* ventricose, at length dark purple-brown *Flesh* white, changing to pale yellowish or brownish

Spring to winter $7\frac{3}{4} \times 4\frac{1}{4} \times 1\frac{1}{2}$ in The cultivated mushrooms of gardeners belong to this species There are several named varieties
1 *purpurascens* W G Sm, *Agaricus arvensis* Schaff, var *purpurascens* Cooke, *P* purple 2 *albosquamosa* W G Sm, *P* white scaly
3 *vaporaria* W G Sm, *A vaporarius* Otto, *P* even, brown pilose
4 *hortensis* W G Sm, *A campestris* L, var *hortensis* Cooke *P* brownish fibrillose or squamulose 5 *Buchananii* W G Sm, *A campestris* L, var *Buchananii* Berk, *P* smooth as if whitewashed, *A* slight, fugacious
6 *cryptarum* W G Sm *A cryptarum* Letell, the name applied to the form grown in caves, grey white or brownish white

789a P perrara Magnus (*perrarus*, very rare) *a b*

P fleshy, globoso-hemispherical, then expanded, scaly, whitish-ochre, sc concentric, floccose, brownish-yellow to sienna
St stuffed, then hollow, equal or attenuate upwards and submarginately-bulbous, smooth above, squamose below, white to pale yellowish or salmon-shaded, sc salmon-brown *A* large, superior, membranous, floccose, persistent *G* free to remote, crowded, whitish, then salmon to full brownish-slate or fuscous
Flesh white, becoming yellowish, faint reddish-ochre or salmon when broken

Taste somewhat sweet, odour somewhat of anise Damp ground, under oaks, near conifers Aug $5\frac{1}{2} \times 4 \times \frac{7}{8}$ in Analogous with 21, 33 and 792a

- 789b P xanthoderma** W G Sm, *Agaricus xanthodermus* Genev (from the yellow-stained outer surface and flesh, Gr *xanthos*, yellow, *derma*, skin) *a*

P fleshy, convex, even, greyish-white, becoming yellowish when touched *St* stuffed to hollow, white, yellow at base *A* membranous *G* sinuato-free, pale rose, becoming purple-brown *Flesh* becoming yellow

Pastures Autumn $3\frac{1}{2} \times 4 \times \frac{3}{4}$ in

- 790 P cretacea** Quel (from its chalky-white colour *creta* chalk) *a b c*

P convexo-flattened, obtuse marg even, rivulose or squamulose *St* hollow, attenuate upwards, smooth *G* becoming fuscous *Flesh* unchanging white

Pastures, stoves, rare Feb–Oct $3\frac{3}{4} \times 4 \times \frac{3}{8}$ in Resembling 40

- 791 P pratensis** Quel (from its habitat, *pratium*, a meadow) *a c*

P expanded, obtuse, floccoso-farinose, then smooth, whitish, then greyish *St* hollow, colour as *P* *G* arcuate, brown

Taste and odour pleasant Pastures, woods Oct $3\frac{1}{2} \times 3$ in

- 792 P campestris** Quel (from its habitat *campus*, a field or plain) *a b c*

P expanded, silky-even, sometimes squamulose, whitish *St* stuffed, even or squamulose, whitish *G* crowded bright salmon, then umber-fuscous *Flesh* white

Odour pleasant May–Dec $5 \times 3\frac{1}{2} \times 1$ in Variable in size and colour. The common edible mushroom. Sometimes the flesh becomes faintly reddish or brownish when cut or broken. Sometimes the odour is strong and somewhat unpleasant. The following varieties have been described—1 *alba* W G Sm, *Agaricus campestris* L var *albus* Viv *P* silky white, *St* short 2 *pratensis* Magnus, *P* rufous squamulose flesh rufescent when cut 3 *rufescens* W G Sm, *A campestris* L, var *rufescens* Fr, *P* rufous squamulose, *St* long 4 *umbina* Magnus, *P* at length even, umber 5 *fulvastera* W G Sm, *A campestris* L, var *fulvaster* Viv, *P* ochreous tawny, *St* solid 6 *costata* W G Sm, *A campestris* L, var *costatus* Viv, *P* sulcate 7 *silvicola* Magnus, *P* smooth shining, *St* elongate, somewhat bulbous, hollow, *A* large 8 *elongata* W G Sm, *A campestris* L, var *elongatus* Berk, *P* at length even, shining white, marg permanently appendiculate with veil, *St* elongate bulbous 9 *exannulata* W G Sm, *A campestris* L, var *exannulata* Cooke *A* fugitive or obsolete. The gills of cultivated mushrooms are frequently thickened or obliterated by disease, this is caused by a white parasitic fungus, *Mycogone perniciosa*. Diseased examples are not fit for food. Sound examples of true mushrooms sometimes cause diarrhoea and sweating.

- 792a P villatica** Magnus (from its frequent habitat, near houses in the country, *villa*, a country house) *a b*

P convex then expanded, silky, soon squamose, ground pale yellowish or brownish straw-colour then vinous-brownish, so vinous-brown *St* solid, somewhat ventricose, paler than *P*, clouded pale vinous-brown *A* superior, large, tomentose beneath *G* free, very crowded, not at first bright salmon,

becoming vinous-brown *Flesh* white, pale reddish-yellow when broken

Edible Taste of almonds, odour somewhat rank Rich pastures, lawns, manured fields, in cellars, on mushroom beds in and out of doors, rare 1 ft 2 in \times 7½ \times 3½ in This is the "gigantic mushroom" of newspapers, it attains a diam of 1 ft 5 in or more and a weight of 4½ lbs By some authors considered a var of 792 or 789, but probably distinct Badham, "Excellent Funguses of England," p 100, mentions an example with a circumference of 43 ins, and weight of 5 lbs 6 ozs

793 P silvatica Quel (from the habitat, *silva*, a wood) *a b*

P at length flat, subumbonate, floccoso-squamulose, pale rusty-brown or rufescent to pale ashy-brown *St* fibrillose below *A*, much paler than *P* or white *G* thin, arid, reddish to umber-fuscous

Edible with a delicate flavour Woods, under cedars, frequent July-Sept 3s \times 3½ \times ½ in Usually thinner than its allies *St* varying long and short

794 P hæmorrhoidaria Magnus (from the flesh changing colour to blood red when bruised, Gr *hæmorrhoides*, veins which discharge blood) *a b*

P at length expanded, obtuse, adpressed-scaly, rufous-fuscous *St* hollow, fibrillose, slightly attenuate upwards, whitish *G* crowded, bright salmon to umber-purple

Suspected sometimes poisonous Woods parks Aug-Nov 4½ \times 4½ \times ½ in

794a P peronata W G Sm, *Agaricus peronatus* Mass (from the scaly stem *peronatus*, sheathed) *a*

P hemispherical then expanded, pale dull ochreous, densely scaly sc small, silky, brown *St* hollow, equal, marginately bulbous, smooth above *A*, white-scaly below *A* large, spreading *G* very distant, crowded, pink then pale purple-brown *Flesh* white, brownish in *St* when cut

Edible Fine woods Oct 3½ \times 6½ \times ½ in Attaining a size of 4½ \times 8 in Allied to 787 (but differing in the hollow, peronate stem) and 794

b Minoris

795 P comtula Quel (from the beautifully coloured gills, *comptus*, gaily adorned) *a b*

P flat, adpressedly fibrillose-scaly, yellowish-white, marg appendiculate with V *St* hollow, colour as *P* or paler *A* fugacious *G* crowded, fuscous-flesh-colour *Flesh* colour as *P*

Edible Taste and smell strong of anise Woods May-Oct 1½ \times 1½ \times ⅓ in Might be mistaken for a small 792

796 P subgibbosa Henn (from the somewhat obtuse pileus, *subgibbosus*, somewhat gibbous) *a c*

P plane, smooth, sienna-tan, marg silky-fibrillose *St* hollow, tan-white *A* fugacious *G* ashy-brown

Woods Sept 4 \times 3½ \times ½ in Might be mistaken for 792

797. P sagata Henn (from the pelliculose pileus, clothed with a cloak, *saga*, a mantle) *a b*

P plane, smooth, bright yellowish-brown *St* hollow, colour as *P*, ochreous or reddish *A* distant, white *G* pale purple-brown or brown-salmon

Taste and odour of **792** Under beeches Oct $2\frac{3}{8} \times 2\frac{3}{8} \times \frac{1}{2}$ in

798 P rusiophylla W G Sm, *Agaricus rusiophyllus* Lasch (from the rose-coloured or reddish gills, *ruseus*, reddish, Gr *phullon*, a leaf) *a b*

P somewhat fleshy, convex then plane, subumbonate, fibrillose, pale flesh-colour or pale purple, becoming pallid *St* imperfectly hollow, attenuate upwards, silky fibrillose white, shaded faint ochre *A* persistent, drooping *G* free, crowded, thin, dry, rosy, then pale purple, pinkish-sienna and brownish *Flesh* whitish, unchangeable

On the ground Autumn $2\frac{1}{2} \times 2\frac{1}{2} \times \frac{1}{2}$ in

799 P dulcidula Henn (from its taste, *dulcis*, sweet) *a*

P plane, subgibbous, glabrous, dry, whitish to pale ochreous *St* hollow, sometimes subbulbous, colour as *P* *A* persistent *G* crowded, slate-colour

Odour mild Heaths Oct $2\frac{1}{2} \times 2 \times \frac{1}{2}$ in Might be mistaken for **792**

800 P echinata Quel (from the rough pileus, *echinus*, a hedgehog) *a b c*

P expanded, obtuse, floccoso pulverulent, dark brown mid darker, marg appendiculate with V *St* fistulose, usually attenuate downwards, floccose, light or dark dull-brownish, crimson, purple or grey-brown *G* crowded, rose cinnamon-crimson, crimson or purple *Flesh* brownish or reddish *Spores* very pale whitish-dull-purple

Gregarious or cespitose Odour strong and disagreeable, mephitic or like cucumber or like **35** Woods, beech, greenhouses May-Nov $1\frac{1}{2} \times 3 \times \frac{1}{2}$ in Springing from a compact ball of earth or mycelium Becomes jet black when dry The vesiculose meal on the pileus is transparent yellow Sometimes placed in *Inocybe*, but retained here on account of the colour of the spores when fresh

XXXIV PILOSACE Quel

(From the pelliculose pileus, Gr *pilos*, felt, *sakos*, a garment)

Veil obsolete *Hymenophore* distinct from the fleshy stem *Pileus* fleshy *Stem* central, simple, without cartilaginous bark *Gills* free or remote *Spores* purple-brown (Fig 43)

The only British species grows on the ground

Pilosace agrees in structure with the fleshy species of *Hiatala*,
Pluteus and *Pluteolus* Species 801

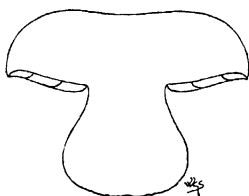


Fig 43 — *Stropharia algeriensis* Quel
 In section Half natural size

- 801 **P algeriensis** Quel (from its being first found in Algeria) *a b*
P plane, gibbous or subumbonate, smooth, white, becoming
 brownish above when fully developed *St* solid, silky, white
G narrow, salmon to rose, becoming dark purple-madder
 Edible On the ground Aug $3\frac{3}{4} \times 1\frac{1}{2} \times 1\frac{1}{2}$ in Intermediate between
Psalliota and *Stropharia* with the aspect of an exannulate 789

XXXV STROPHARIA Quel

(From a fancied resemblance in the annulus to a sword-belt,
 Gr *strophos*)

Vel annular on stem *Hymenophore* confluent and homogeneous
 with the fleshy stem *Pilus* with or without a pellicle, even, scaly

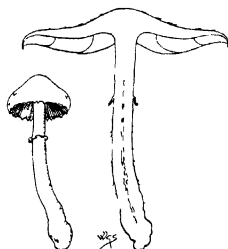


Fig 44 — *Stropharia aruginosa* Quel
 entire and in section
 One third natural size

and viscid, or innato-fibrillose and dry *Stem* central, fleshy,
 annulate *Gills* more or less adnate, at first whitish, or pale
 clay-brownish (Fig 44)

Most of the species are epiphytal, some grow on the ground
Stropharia agrees in structure with *Armillaria* and *Pholiot*

Species 802—820

a Viscipelles Pileus with an even or scaly, usually viscid pellicle

Not usually growing on dung 802—810

Growing on dung, annulus often imperfect 811—814

b Spintrigera Pileus without a pellicle, innato-fibrillose, not viscid 815—820

a Viscipellis

802 *S æruginosa* Quel (from its verdigris colour, *ærugo*, verdigris)

a b c

P expanded, subumbonate, brownish-yellow, covered with transparent blue gluten, clad with white scales, marg appendiculate with V *St* hollow, white scaly and viscid below *A*, blue or verdigris, often furnished with stringy root-like growths *G* purple

Sometimes caespitose Odour strong of rancid ointment Woods, meadows, damp thatch, wood, stumps, hazel, amongst stones, common July-Nov $3\frac{1}{2} \times 4\frac{1}{2} \times \frac{1}{2}$ in

802a *S squamulosa* Mass (from the small scales of the pileus *squama*, a scale)

P soon plane, dry, silky, deep verdigris-green with darker, innate floccose squamules mid yellow-orange marg white with veil *St* at length hollow, paler than *P*, white at base *A* fragmentary in the form of large hard white sq at apex *G* crowded, brown, with a vinous tinge *Flesh* white in *P* pale verdigris in *St*

Amongst stones, Ripon Sept 1895 $2\frac{3}{8} \times 2\frac{1}{8} \times \frac{1}{8}$ in

803 *S alboeyanea* Quel (from its colours, *albus*, white, *cyanus*, blue) *a b c*

P plane or subumbonate, bright blue or verdigris from the gluten, becoming dull yellowish or white *St* hollow, not viscid, white *A* fibrillose, purple *G* fuscous-salmon *Flesh* white, pale verdigris-green or pale blue

Sometimes caespitose Pastures, woods, sometimes on dung, uncommon Sept-Nov $1\frac{1}{2} \times 3\frac{3}{8} \times \frac{1}{8}$ in

804 *S inuncta* Quel (from the besmeared pileus, *inungo*, to besmear) *a b c*

P convex, subumbonate, light yellowish or brownish, slate-purple from the gluten *St* fistulose, not viscid, white *A* fibrillose *G* adnate, dull fuscous-purple *Flesh* white

Gregarious, sometimes caespitose Taste and odour like radishes, but disagreeable Rich pastures, graveyards, lawns, stumps, sticks Sept-Nov $1\frac{1}{2} \times 3\frac{3}{8} \times 1\frac{3}{8}$ in Form *lundensis* Sacc, *P* convex, expanded, *St* stuffed Form *upsalensis* Sacc, *P* convex, plane, umbonate, *St* hollow Var *pallida* W G Sm, *Agaricus inunctus* Fr, var *pallidus* B & Br pale

- 805 S coronilla** Quel (from a fancied resemblance to a crown in the whitish-floccose margin of the pileus, *corona*, a crown) *a b*
P convexo-expanded, obtuse, light yellow, mid sub- or wholly-vinous *St* stuffed, fibrillose, white *G* crowded, vinous-brownish

Waysides, parks May-Oct $1\frac{1}{4} \times \frac{2}{3} \times \frac{1}{8}$ in Perhaps the same as **807**

- 806 S obturata** Quel (from the stuffed stem, *obturo*, to stuff) *a b c*

P very fleshy, convex, obtuse, often rimoso-squamulose, pale ochreous mid shaded sienna *St* not scaly, white, with a membranous collapsing *A* *G* crowded, dull purplish-brown

On the ground amongst grass, rare Sept-Oct $1\frac{1}{2} \times 1\frac{3}{8} \times 1\frac{3}{8}$ in
 Might be mistaken for **792**

- 807 S melasperma** Quel (from the blackish spores, *Gr melas*, black, *sperma*, a seed) *a c*

P expanded, biscuit-colour or pale buff, or white with a yellowish tinge *St* hollow, white *G* rounded, ventricose, purplish, then deep purple-brown *Flush* white, yellowish in *St*

Meadows and borders of thickets, rare Aug-Oct $2\frac{3}{8} \times 2 \times 1\frac{3}{8}$ in
 Might be mistaken for **792**

- 808 S squamosa** Quel (from the scaly pileus, *squama*, a scale) *a b c*

P expanded, obtuse, ochreous or brownish mid darker, clad with small whitish or brown scales *St* hollow, viscid-scaly below distant λ , pallid above, sienna below *G* rounded-adnate, blackish, with a whitish edge

Woods, fields amongst chips, sometimes from interior of beech nuts Sept-Nov $2\frac{1}{4} \times 5_8 \times 1\frac{1}{8}$ in *Var thrausta* Mass *P* soon glabrous, more slender than type *Var aurantiaca* Mass *P* orange or brick red

- 809 S Percevalii** Sacc (after Cecil H Spencer Percival) *a b c*

P expanded, subumbonate, warm brown-ochreous, margin appendiculate with floccose white *V* *St* hollow, attenuate upwards, fusiform-rooting, pallid above, pale brownish and squarrose below distant *A* *G* distant, pallid umber

Sawdust, rotten wood Nov $2_8 \times 3_8 \times \frac{3}{8}$ in Possibly the same as *S depilata* Karst, but that has a solid stem Might be mistaken for a *Flammula* Allied to **808**

- 810 S Worthingtonii** Sacc (after Worthington G Smith) *a b*

P hemispherico-conical, smooth, golden-yellow *St* fistulose, cobalt, or turquoise-blue *A* imperfect *G* adnato-ascending, pallid brown *Flush* pale sulphur-yellow in *P*, pale bright blue in *St*

Pastures, woods Nov-Dec $\frac{7}{8} \times 2\frac{1}{4} \times 1\frac{1}{8}$ in

- 811 S luteonitens** Quel (from the shining yellow pileus, *luteus*, yellow, *nitens*, shining) *a*

P expanded, umbonate, sometimes whitish, with a few small sienna scales *St* hollow, even, pruinose above distant *A*,

colour as P, sienna at base G adnexed, ventricose, pale purplish-brown

Dung, sawdust, earth Sept $2\frac{1}{2} \times 2\frac{1}{2} \times \frac{1}{2}$ in Not unlike 818

812 S merdaria Quel (from its habitat *merda*, dung) *a b c*

P convexo-plane, smooth, hygrophanous, yellow or brownish then straw-colour, marg appendiculate with white V St stuffed, floccose, dry, straw-white or brownish, base white-villous G adnato-rounded or subdecurent, purplish-fuscos

Gregarious subcaespitose Dry dung, road scrapings Aug - Oct $1\frac{1}{2} \times 1\frac{1}{2} \times \frac{1}{2}$ in 817 is perhaps form *major* Fr of this species Easily overlooked, colour of pileus exactly that of dry horse dung

813 S stercoraria Quel (from the habitat *stercus*, dung) *a b c*

P hemispherical smooth, yellow mid darker marg substriate St stuffed, yellowish A viscid G very broad, subdistant, purple-slate

Dry dung in pastures May-Nov $1\frac{1}{2} \times 3\frac{1}{2} \times \frac{1}{2}$ in

814 S semiglobata Quel (from the half-globose pileus) *a b c*

P yellowish St fistulose, smooth, colour as P, thickly covered with transparent gluten below the glutinous A G very broad, pale purplish, clouded purple-black

Gregarious Dung, rabbit, horse, in pastures, common April-Nov $1\frac{1}{2} \times 5\frac{1}{2} \times \frac{1}{2}$ in Usually smaller than 813 but sometimes twice the size of type

b Spintrigera

815 S caput-medusæ Karst (from a fancied resemblance in the pileus to the head of Medusa *caput*, a head) *a b c*

P expanded, obtusely umbonate, scaly-squarrose, soon naked, pale white umber mid umber sc separ St hollow, white above squarrose and white umber below superior A if present G ventricose, at length separating free, pallid umber or olive-shaded, spotted ferruginous, edges white

Subcaespitose Woods, pine, about fir stumps, base of elm, rare Sept - Oct $3 \times 3\frac{1}{2} \times \frac{1}{2}$ in Becoming darker when dry

816 S scrobincea Sacc (from the appearance of the pileus as if sprinkled with sawdust, *scrobis*) *a b*

P expanded, obtuse, tan mid ochraceous-tan, or grey or brown shaded, clad with minute, fugitive sepia squamules St hollow, fibrillose whitish, squamulose below the fugitive A G crowded, purple

Subcaespitose On or near stumps, ash, rare Aug - Oct $1\frac{1}{2} \times 3\frac{3}{8} \times \frac{1}{4}$ in Thinner and more graceful than 815

817 S ventricosa Mass (from the ventricose gills) *a*

P expanded, broadly gibbous, even, smooth, subviscid in wet weather, tawny-ochraceous, becoming paler St hollow, ventricose below with a rooting base, minutely squamulose, pale yellow A large, persistent G slightly adnexed, ventricose, sub-crowded, purplish-brown

Cæspitose On the ground $1\frac{1}{2} \times 3 \times \frac{1}{4}$ in Perhaps only a form of 812 form *major* Fr

818 S Jerdonii Sacc (after Archibald Jerdon) *a*

P expanded, obtusely umbonate, minutely rivulose, pale ochreous, mid slightly darker, sc white *St* hollow, attenuate upwards, white above *A*, subscales, tan-ochreous and brownish below *G* transversely striate, purple-brownish

Stumps, fir, rare Sept–Nov $2 \times 2\frac{1}{2} \times \frac{1}{4}$ in

819 S spintrigera Sacc (from the annulus, *spintr*, a bracelet, *gero*, to carry) *a*

P flat, obtuse, even, smooth, faintly ochreous or brownish *St* hollow, attenuate upwards, floccoso-fibrillose below *A*, white *A* distant, fugacious *G* crowded, fuscous-brown

Cæs pitose Stumps, beech Sept $3\frac{1}{2} \times 3\frac{1}{2} \times \frac{1}{8}$ in

820 S hypsipus Karst (from the long stem, *Gr hypsipous*, high-footed) *a b*

P plane, subobtuse, even, smooth, hygrophanous, pallid, pale brownish, or shaded dull flesh-colour, marg striate *St* hollow, smooth, white *A* distant *G* subdistant, brown or dull purplish-slate

Swampy places, amongst grass, sometimes on moss and sticks Oct $3\frac{1}{2} \times 6\frac{1}{2} \times \frac{1}{16}$ in

XXXVI **HYPHLOMA** Quel

(From the web- or fringe-like veil, *Gr hyphu*, a web, *loma*, a fringe)

Veil fringe-like, adhering to the margin of the pileus, sometimes forming a fibrillose annulus *Hymenophori* confluent and

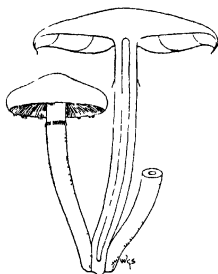


Fig 4 —*Hypholoma sulcatum* Quel
Entire and in section
One third natural size

homogeneous with the fleshy stem *Pileus* more or less fleshy, the margin at first incurved *Stem* central, simple, or slightly

fibrilloso-annulate *Gills* adnate or sinuate *Spores* slate-purple (Fig 45)

The species grow on wood and have a cæspitose habit. None are edible, some are nauseous-bitter.

Hypholoma agrees in structure with *Tricholoma*, *Entoloma* and *Hebeloma* Species 821—844

a Fascicularis *Pileus* tough, smooth, dry, except 821 and 828, brightly coloured, not hygrophanous *Gills* adnate

821—828

b Viscida *Pileus* naked, viscid 829, 830

c Velutina *Pileus* silky with innate fibrils or streaked 831—834

d Flocculosa *Pileus* with floccose superficial separating scales 835, 836

e Appendiculata *Pileus* smooth, hygrophanous 837—844

a Fascicularis

821 *H silaceum* Quel (from its colour, *sil*, yellow-ochre) *a*

P subexpanded, obtuse, viscid, brown-ochreous, marg cracked, whitish *St* bulbous, fibrilloso-striate, shining, colour as *P* *G* purplish-brown or grey olivaceous

Solitary to cæspitose. Taste mild, odour mealy. Old pastures, under firs Aug-Nov $2 \times 3\frac{1}{2} \times \frac{1}{2}$ in. Not unlike some forms of 822, intermediate forms occur.

822 *H sublateralitium* Quel (from the colour of the pileus, *sub*, somewhat, *later*, a brick) *a b c*

P convexo-plane, obtuse, tawny brick-red, marg paler, appendiculate with V, sometimes with sc. *St* stuffed, attenuate downwards, scaly-fibrillose, pale yellow above, ferruginous below. *G* sinuate, arcuate or decurrent, dull yellow-greenish to pale slate-purple. *Flesh* sulphur-white.

Cæspitose to solitary, sometimes in rings near trees. Probably poisonous. Taste usually bitter nauseous. Forests, hedgerows, stumps, rails old pine wood, oak, common. April-Dec $3\frac{1}{2} \times 4\frac{1}{2} \times \frac{1}{2}$ in. Polymorphic, *P* sometimes 7 in in diam. Var *Schaefferi* Sacc. *G* deeply decurrent. Var *squamosum* Sacc. *P* brown squamulose.

823 *H capnoides* Quel (from the smoky-tinted gills, Gr *kapnos*, smoke, *eidos*, appearance) *a b c*

P subexpanded, obtuse, shining, pale ochreous with mid sienna-red, or wholly orange. *St* hollow, silky, even, elastic, pale ochreous, or whitish above and brownish below. *G* subcrowded, arid, grey to fuscous-purple.

Taste and odour mild. Woods, pine, pine stumps, uncommon. April-Dec $2\frac{1}{2} \times 5 \times \frac{1}{2}$ in.

824 *H epixanthum* Quel (from the yellowish-brown colour, Gr *epixanthos*, yellowish brown) *a b c*

P expanded, obtuse, silky, apt to split, marg lobed, undulate. *St* hollow, floccoso-fibrillose, reddish-sienna, darker below.

G crowded, light yellow, sometimes cinereous *Flesh* white, becoming light yellow, sienna in *St*

Taste acrid, odour strong, acid Stumps, fir, fallen firs, on the ground, frequent Aug-Dec $3\frac{1}{2} \times 6\frac{1}{2} \times \frac{3}{8}$ in Sometimes wholly bright yellow, often sterile One form of this is *Chitocbe Sadleri* Sacc

825 *H elæodes* Gill (from the olive colour of the gills, Gr *elaios*, olive, *eides*, appearance) *a b c*

P plane, subumbonate, tan or buff *St* fibrillose, colour as *P*, becoming ferruginous *G* crowded, thin, white to olivaceous *Flesh* pale buff

Taste bitter, odour sour Stumps, on the ground Oct $2\frac{3}{8} \times 2\frac{1}{8} \times \frac{1}{4}$ in Sometimes wholly ivory whitish Sometimes regarded as a form of **826**

826 *H fasciculare* Quel (from the fasciculate habit) *a b c*

P flat, subobtuse, sulphur-yellow, mid sienna *St* hollow, fibrillose sulphur above, sienna below or wholly sulphur-yellow, often fibrilloso-annulate *G* crowded, sulphur to green *Flesh* sulphur

Gregarious densely capitate Probably poisonous Taste and odour acrid, nauseous, bitter, sickening Stumps, on the ground, very common April-Dec $2\frac{1}{8} \times 4\frac{1}{8} \times \frac{1}{4}$ in There are many varieties Recorded from Glynorrwg collieries with stems 4 feet long

827 *H instratum* Mass (from the naked, uncovered pileus, *instratus*, uncovered) *a*

P convex, broadly umbonate, rugose, rich dark-brown *St* hollow, smooth and white above, fibrillose and pale brown below *G* adnato-ascending, brown to purple-brown, edge paler *Flesh* pale sienna-brownish

Stumps Autumn $1\frac{1}{8} \times 2\frac{1}{8} \times \frac{1}{4}$ in

828 *H dispersum* Quel (from the scattered habit of growth, *dispergo*, to scatter) *b*

P expanded, viscid, obtuse, tawny-yellowish to purplish-umber *St* fistulose, sometimes rooting, silky-fibrillose, faintly ferruginous above, rich fuscous-brown below *G* distant, thick, brownish flesh-colour or shaded olive, with a white edge *Flesh* pale yellow-tawny

Woods, pine, dry to marshy places, on the ground, on sawdust April-Nov $1\frac{1}{8} \times 4\frac{1}{2} \times \frac{1}{8}$ in Variable in colour and habit

b Viscidæ

829 *H incompitum* Mass (from its simple, unadorned appearance, *incompitus*, rough, without ornament) *a*

P expanded, broadly gibbous, even, deep bay-brown, or orange-tawny *St* hollow, equal, pale above, dark ferruginous below, brown-fibrillose and yellow tomentose *G* adnato-rounded, crowded, deep olive, purple-clouded

Stumps Autumn $4 \times 3\frac{1}{2} \times \frac{1}{2}$ in

- 830** *H œdipus* Sacc (from the swollen base of the stem, *œdipous*, with a swollen foot) *a*

P hemispherical, mid umber, marg pallid, appendiculate with V *St* solid, semibulbous, fibrillose below the distant A, whitish, shaded pale sienna *G* adnate, umber

Solitary or in groups of two or three Sticks and dead leaves Feb $\frac{7}{8} \times 1\frac{1}{2} \times \frac{1}{8}$ in

c Velutina

- 831** *H pseudostorea* Rea (from its being at first considered the same as *H Storea*) *a b*

P convex, obtuse or subumbonate, then expanded fleshy, at first purplish-brown with mid darker, soon breaking up into large fibrillose purplish-brown scales, silky-white to pale fawn beneath, marg appendiculate and entire when young *St* hollow, equal or attenuate downwards, at first even, then silky-brown-fibrillose white above, pale yellowish below *G* adnate, at first white, then rose, becoming brown to purple-brown, not exuding drops of water

Usually caespitose, sometimes solitary Taste insipid, somewhat disagreeable, odour strong, disagreeable Woods, plantations, under larches. Sept-Nov $2\frac{1}{2} \times 4\frac{1}{2} \times \frac{1}{2}$ in This is the plant referred to *Agaricus Storea* Fr by Berkeley, and afterwards named *A Storea*, var *caespitosa* by Cooke Sometimes confounded with **832**

- 832** *H laerymabundum* Quel (from the tear like drops on the gills, *lachrymabundus*, tearful) *a b c*

P expanded, obtuse, innato-pilose whitish, then fuscous, sc darker, marg appendiculate with V *St* hollow, fibrillose-scurly, fuscous-white *G* adnato-rounded, whitish to white-purple-brownish, studded with drops of water

Caespitose Stumps or on the ground yards Sept-Dec $3 \times 3\frac{1}{2} \times \frac{1}{16}$ in Often confounded with **831** and **834** Used for inferior litchup Some times sold for the mushroom

- 833** *H pyrotichum* Quel (from the fiery-red fibrils of the pileus, Gr *pur*, fire, *thia*, a hair) *a*

P expanded, obtuse, pale bright vermilion-ochre, marg appendiculate with V *St* hollow, fibrillose, whitish to pale orange, sometimes imperfectly annulate with V *G* adnate, dull purplish-brown, studded with drops of water

Caespitose Woods, pine, beech, about roots Aug-Oct $3 \times 3\frac{1}{2} \times \frac{1}{16}$ in Var *egregium* Mass, with a densely shaggy stem

- 834** *H velutinum* Quel (from the velvety pileus of young examples, *vellus*, fleece) *a b c*

P expanded, obtusely umbonate, tawny, umber or sienna, marg appendiculate with V *St* hollow, fibrillose, whitish above, sienna or umber below *G* adfixed, brown-fuscous, dark-spotted, studded with drops of water

Subcaespitose Taste insipid Stumps, common July-Oct $4 \times 5 \times \frac{1}{2}$ in Variable in stature, pileus sometimes 6 in in diam Often confused with

832 Intermediate forms occur between this and **832** and **833** Some times sold for the mushroom Used for inferior ketchup Var *leiocephalum* Mass *P* mid rugged, much smaller than type

d Flocculosæ

835 *H easeum* Qué! (from its grey and white colours, *casus*, old) *a b* Fragile

P hemispherical, obtuse, dull greyish-ochre or ochre, marg paler, appendiculate with white *V* *St* hollow, fibrillose, white *G* ascending, adnexo-rounded, arid, at first pale dove-colour then blackish-brown, edge whitish

Gregarious or caespitose Pastures July $1\frac{1}{2} \times 3\frac{1}{4} \times \frac{3}{8}$ in

836 *H punctulatum* Mass (from the squamuloso-punctate pileus) *a*

P convex, pallid, shaded yellowish, brownish or white sulphur, sc dot-like, pale *St* stuffed, punctiform-squamulose from base to *A*, colour as *P*, sc faintly rufescent *G* sinuato-adnate, subcrowded, pale amber to whitish-sienna *Flesh* colour as *P* *Sporis* brown

Densely caespitose Chips, sawdust, rotten twigs $1\frac{3}{4} \times 1\frac{3}{4} \times \frac{1}{4}$ in Berkeley Cooke and Massee assign this plant to the present position Kalchbrenner places it in *Pholiota* near **578** Fries includes it in *Stropharia* after **816**

e Appendiculatæ

837 *H LANARIPES* Sacc (from the woolly stem *lana*, wool, *pes*, a foot) *a b c*

P expanded, obtuse, thin, tough apt to split, somewhat hairy-scaly, atomate, rugose, tan or brownish marg appendiculate with white *V* *St* hollow fibrous, striate above, subfibrillose or tomentoso-squarrose below *G* adnato-ascending, at first white, then pale-brown, at length purplish-brown

Subcaespitose Soil in conservatories June-July $3\frac{1}{4} \times 4\frac{1}{4} \times \frac{1}{4}$ in

838 *H Candolleianum* Qué! (after Alphonse de Candolle) *a b c*

P flat, obtuse, depressed, smooth, apt to split, thin, brown, becoming white, mid ochraceous *St* hollow, striate above, white *G* adnexo- or adnato-rounded, ventricose, serrulate, fuscous-cinnamon *Flesh* white

Gregarious, caespitose Taste slightly styptic, disagreeable or none, odour strong Stumps, elm in the ground, frequent April-Nov $3 \times 3\frac{1}{2} \times \frac{1}{4}$ in Firmer than **839**

839 *H appendiculatum* Qué! (from the appendiculate veil at the margin of the pileus) *a b c*

P hygrophanous, expanded, rugose, thin, apt to split, atomate, faintly ochreous-white mid ochreous *St* fistulose, pruinete above, white *G* adnato-rounded, purplish flesh colour or brownish

Caespitose Stumps, sticks, under elm, on the ground, common June-Oct $3 \times 3\frac{1}{2} \times \frac{1}{8}$ in Thinner and more fragile than **838**

840 H felinum Sacc (from the tawny pileus, coloured like members of the cat genus, *Felis*) *a b*

P expanded, smooth, ochreous, biscuit-colour when dry *St* fistulose, shining, striate above, white-floccose at base *V* annulate *G* dove-colour, shaded brown

Gregarious, subcespitose Parks, roadsides, etc., on the ground Sept
 $1 \times 1\frac{1}{2} \times \frac{1}{8}$ in

841 H leucotephrum Sacc (from the colour of the gills, Gr *leukos*, white, *tephros*, ash-coloured) *a b c*

P convexo-expanded, wrinkled, whitish or faint-salmon or ochreous-shaded *St* hollow, striate above, silky-fibrillose below, whitish *A* large *G* adnato-ascending, deep slate-black, edge whitish

Cespitose Base of ash trees Sept-Oct $2 \times 4\frac{1}{4} \times \frac{1}{4}$ in

842 H egenulum Sacc (from its poor appearance *egenulus*, poor) *a*

P hemispherical, broadly umbonate, smooth, white marg finely striate *St* fistulose, minutely adpressedly scaly, white faintly sienna-ochreous below *G* adnate with a tooth, ventricose, purple-umber, edge white

Solitary On the ground amongst grass May $1\frac{3}{8} \times 1\frac{3}{4} \times \frac{1}{8}$ in

843 H hydrophilum Quel (from its hygrophanous habit, Gr *hudos*, water, *philos*, loving) *a b*

P flat, brittle, smooth, rugose, deep ferruginous-sienna or tawny-ochreous, paler when dry *St* hollow, fibrilloso-mealy, shining, whitish above, faintly sienna below *G* adnexed or adnato-rounded, crowded, exuding drops of water, brown or sienna

Cespitose About and on trunks and stumps Oct-Nov $2\frac{5}{8} \times 4\frac{1}{4} \times \frac{1}{4}$ in
Pileus sometimes 5 in in diam Sometimes placed in *Bolbitus*

844 H pilulæforme Gill (from the appearance of the pileus, like a little ball, *pilula*) *a*

P even, smooth, fuscous, ochreous when dry *St* fistulose, white *V* annulate in young examples *G* adnexo-ascending, fuscous

Cespitoso crowded Mossy trunks, rare Autumn $\frac{3}{4} \times 1\frac{1}{8} \times \frac{1}{16}$ in

XXXVII PSILOCYBE Quel

(From the naked pileus, owing to the usually obsolete veil,
Gr *psilos*, naked, *kube*, a head)

Veil very fugacious, usually obsolete *Hymenophore* confluent with, but heterogeneous from the cartilaginous stem *Pileus* more or less fleshy, smooth, the margin at first incurved *Stem* central, fistulose or stuffed, subcartilaginous, rigid or tough, often rooting, simple *Gills* becoming fuscous, brownish or purplish (Fig 46)

Nearly all the species grow on the ground and are gregarious and sometimes cæspitose, a few grow on dung, they are inodorous and none are edible

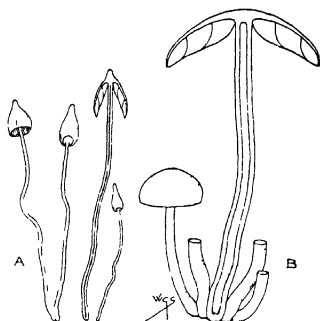


Fig 4b —A *Psilocybe semilanceata* Quel B *P. spadecea* Quel
Entire and in section One half natural size

Psilocybe agrees in structure with *Collybia*, *Leptoma*, *Naucoria* and *Panaeolus* Species 845—871

- a* *Tinaces* Veil rarely conspicuous Pileus pelliculose, slightly viscid in wet weather, bright in colour, becoming pale
Stem with a thick tough bark, flexile, usually coloured
Gills ventricose, not decurrent 845—854
Gills plane, very broad behind, subdecurrent 855—860
Gills ascending sublinear 861, 862
- b* *Rigidae* Veil obsolete Pileus scarcely pelliculose, flesh usually scissile, hygrophanous Stem rigid Gills adnexed, rarely adnate 863—871

a *Tinaces*

845 **P. sarcocephala** Gill (from the fleshy pileus, Gr *sarx*, flesh, *kephale*, the head) *a b*

P expanded, obtuse, dry, pale tawny, salmon or pale ferruginous
St whitish to rusty *G* adnato-rounded, salmon, then sooty
Flesh white, pale salmon in stem

Gregarious, subcaespitose Woods, grassy places, usually about or near stumps, elm Sept—Nov $4 \times 5\frac{1}{2} \times \frac{3}{4}$ in Resembles 230

845a **P. helvola** Mass (from the yellowish colour, *helvolus*, pale yellow) *a*

P campanulate or conical, convex, then expanded, obtuse, even, glabrous, tawny-ochreous, mid darker, cuticle often cracked into patches near mid *St* equal, hollow, fibrillose, often

twisted, white or tinged ochreous, base thickened, white-downy
G adnate, then separating, broad, subdistant, purplish-umber,
 clouded, edge white

On the ground amongst grass Sept $1\frac{1}{2} \times 2\frac{3}{8} \times \frac{3}{16}$ in

846 *P. ericæa* Quel (from the habitat, *erica*, heath) *a b*

P flat, obtuse or subumbonate, tawny-ferruginous or umber,
 ochre when dry *St* smooth, subsilky, tan above, brownish
 below, base white-villous *G* adnate, subdistant, blackish
 with a light edge

Gregarious Woods, pastures, rare May-Oct $1\frac{1}{2} \times 4\frac{1}{2} \times \frac{1}{8}$ in A
 smaller form occurs in wet places

847 *P. subericæa* Sacc (from its partial resemblance to 846) *a b*

P plane, obtuse or subumbonate, tawny or whitish-yellow, paler
 when dry *St* pallid or pale yellowish *G* adnato-sinuate,
 blackish

Taste acid Fields, under firs June-Aug $2\frac{1}{8} \times 2\frac{3}{8} \times \frac{3}{16}$ in

848 *P. uda* Gill (from the moist pileus, *udus*, moist) *a b c*

P flat, obtuse, smooth or wrinkled, brick-tawny or yellowish
St fibrillose tan above, pale tawny-ferruginous below
G adnato-sinuate, broad, fuscous-purple

Scattered Swampy places amongst *Sphagnum* Oct-Nov $1\frac{1}{2} \times 3\frac{1}{4} \times \frac{1}{8}$ in
 Gills sometimes remaining pallid and sterile

849 *P. canofaciens* Mass (from the hoary appearance, *canofaciens*,
 making hoary) *a b*

P expanded, obtuse, umber, mid subareolate, sienna, marg
 darker with feeble traces of a fibrillose or arachnoid *V*
St equal, hollow, brittle, umber-greyish, sooty below, white scaly
G adnato-ascending, broad, livid-brownish, purple clouded

Cæs pitose Rotten straw and rubbish May $1\frac{1}{8} \times 2\frac{1}{8} \times \frac{1}{16}$ in

850 *P. areolata* Sacc (from the cracked-areolate pileus) *a b c*
 Not brittle

P subexpanded, minutely fibrillose, white, then ochreous or
 fuscous *St* fibrillose, striate, tan and pulverulent above,
 sienna below *V* fibrillose, cyanescent *G* adnato-rounded,
 dull purple with a white edge

Densely cæs pitose Gardens, on wood May-Oct $1\frac{3}{4} \times 2\frac{1}{2} \times \frac{1}{4}$ in

851 *P. virescens* Mass (from the green tints, *virescens*, green) *a b*

P expanded, at first minutely silky, cracking, bright dark-brown,
 interstices of cracks clear pale verdigris-green, then yellowish
St downy, apex striate, pale green above, ferruginous below
G adnexed, subcrowded, smoky-purple with paler edge

Solitary Taste and odour none Rotten stumps and chips Autumn
 $\frac{1}{2} \times 2\frac{1}{2} \times \frac{1}{4}$ in

852 *P. agraria* Karst (from the habitat, *ager*, a field) *a*

P flat, obtuse or umbonate, white or ashy *St* smooth, white
G adnate, ashy to fuscous *Flesh* white

Near stumps Sept-Oct $1\frac{1}{4} \times 2\frac{3}{8} \times \frac{3}{16}$ in

- 853 P chondroderma** Sacc (from the parchment-like pellicle of the pileus, Gr *chondros*, cartilage, *derma*, skin) *a*
P conico-campanulate, smooth, cracked, dark date-brown, marg jagged-appendiculate with V *St* fibrillose, pale sienna, darker below *G* ascending, adfixed, purplish-brown, edge white
 Woods, fir Sept $1\frac{1}{2} \times 1\frac{1}{2} \times \frac{3}{16}$ in Stains paper etc, yellow
- 854 P serobicola** Sacc (from its habitat, *serobis*, sawdust) *a*
P convex, umbilicato-depressed, whitish, marg undulate *St* attenuate downwards, fibrillose, colour as *P* *G* arcuato-adnate, brown, with a red tinge
 Pine sawdust, branches Nov $1\frac{1}{2} \times 1\frac{3}{8} \times \frac{1}{16}$ in
- 855 P ammophila** Gill (from the habitat, Gr *ammos*, sand, *philos*, loving) *a b*
P expanded, subumbonate, sienna-buff marg striate *St* base clavate, apex striate, white to pale buff, half buried in sand *G* adnate or with a decurrent tooth, pale purplish, becoming slate-pulverulent with spores
 Sea shores, amongst sand Aug-Sept $1\frac{3}{8} \times 2 \times \frac{1}{8}$ in
- 856 P coprophila** Quel (from the habitat, Gr *kopros*, dung, *philos*, loving) *a c*
P expanded, obtuse or subumbonate, downy, white, then rufescent *St* shaggy-flocculose, whitish *G* adnate very broad, crowded, fuscous
 Amongst grass, rabbits dung, on dung heaps, rare Oct-Jan $1\frac{3}{8} \times 1\frac{3}{4} \times \frac{1}{8}$ in
 Sometimes infesting mushroom beds
- 857 P bullacea** Quel (from a fancied resemblance in the pileus, when young, to a knob, *bullæ*) *a b c*
P expanded, subumbonate, dark tawny, tan when dry, marg appendiculate with V *St* subfibrillose, tawny or yellow, base fuscous-ferruginous, fibrilloso-annulate when young *G* adnate with a small sinus, very broad, crowded, fuscous-ferruginous
 Gregarious Dung, rich soil, amongst *Lolytrichum* April-Sept $1\frac{1}{8} \times 1 \times \frac{1}{8}$ in
- 858 P physaloides** Quel (from a fancied resemblance in the pileus to a bladder, Gr *physalis*, a bladder, *eidos*, appearance) *a b c*
P flat, umbonate, fuscous purple *St* adpressedly fibrillose, date-brown below, paler above *G* adnato-decurrent, crowded, ventricose, pallid ferruginous-fuscous
 Rich grassy places, woods, on moss, horse dung, old walls, uncommon
 Feb-Sept $1\frac{1}{8} \times 1\frac{1}{8} \times \frac{1}{16}$ in Must not be confounded with 771
- 859 P atrorufa** Quel (from the blackish-red pileus, *ater*, black, *rufus*, red) *a*
P expanded, obtuse, black-rufous or purple-fuscous, mid darker, marg striate *St* at first subfibrillose, subpruinete

above, colour as P, base darker *G* adnate with a small tooth, umber to purple-umber

Woods, mixed Nov $1\frac{1}{4} \times 2\frac{1}{8} \times \frac{1}{16}$ in

- 860 *P. nuciseda*** Mass (from the frequent habitat, nuts, *nux*, a nut, *sedeo*, to sit) *a*

P expanded, subumbonate, subsilky when dry, light yellow or shaded sienna, mid sienna *St* slightly attenuate downwards, fuscous, or white below *G* adnate, broad, ventricose, fuscous to umber-black

Beech and hazel nuts, chips, wood $1\frac{1}{8} \times 1\frac{1}{8} \times \frac{1}{16}$ in Habit of 771

- 861 *P. compta*** Sacc (from the adorned pileus, sprinkled with minute shining spots, *comptus*, ornamented) *a*

P expanded, obtuse, pallid to ochreous marg striate, subcrenulate *St* flexuous, silky-shining, tan, faintly rufous below *G* adnato-ascending or adnexed, distant, rosey-umber

Woods, amongst grass, rare Sept-Oct $1\frac{1}{2} \times 2\frac{1}{4} \times \frac{1}{16}$ in

- 862 *P. semilanceata*** Quel (from a fancied resemblance in the pileus, as seen in vertical section to a lance head, *semi*, half, *lanca*, a spear) *a b c*

P acutely conical, whitish-ochre mid pale marg slightly striate, slate, sometimes fuscous-shaded *St* flexuous, smooth, fibrillose annulate when young, colour as P, base pale sienna *G* adnexo-ascending, crowded, purplish to purple-black

Gregarious Reputed poisonous Pastures, roads &c., common Stem sometimes 6 in high Aug-Nov $\frac{1}{2} \times \frac{3}{8} \times \frac{1}{16}$ in Var *caruleus* Sacc
P subobtuse *St* more or less distinctly tinged with blue

b Rigidæ

- 863 *P. canobrunnea*** Quel (from the greyish-brown pileus *canus*, hoary, *brunneus*, brown) *a b*

P plane, subviscid when moist, flesh-brown, pale clay when dry *St* rooting, squamulose, whitish *G* adnexed, crowded, broad, ventricose, brownish-purple

Solitary or laxly gregarious On the ground in sunny places, on scorched ground Autumn $2 \times 1\frac{1}{8} \times \frac{1}{16}$ in

- 864 *P. spadicea*** Quel (from the colour of the pileus *spadiceus*, date-brown) *a b c*

P plane, usually cracked, dark to ochreous-brown, becoming paler in patches *St* smooth, whitish, base pale sienna *G* adnexo-rounded, adnate or adnate with a tooth, crowded, brown

Laxly clustered Stumps, earth, manure heaps, amongst short grass, common Feb-Nov $2\frac{3}{8} \times 4 \times \frac{1}{2}$ in Var *hygrophila* Karst larger than type
Var *polycephala* Gill densely crowded

- 865 P squalens** Karst (from its dirty colours, *squalens*, dirty) *a*
P flat, pale livid-ferruginous, pale dull clay-colour when dry
St striate above, colour as *P* *G* adnato decurrent, crowded,
 cinnamon-umber
 Solitary or caespitose On and near trunks, rare $1\frac{1}{2} \times 2\frac{1}{2} \times \frac{1}{8}$ in
- 866 P cernua** Quel (from the frequently drooping pileus, *cernuo*,
 to fall head foremost) *a b c*
P expanded, slightly wrinkled when dry, whitish *St* smooth,
 flexuous, colour as *P* *G* adnato-ascending, cinereous-blackish
 or slate-sprinkled
 Solitary or gregarious, usually caespitose Dead wood, chips, leaves, lawns,
 uncommon Aug-Dec $1\frac{1}{2} \times 3\frac{1}{2} \times \frac{1}{8}$ in
- 867 P hebes** Karst (from the obtuse pileus, *hebes*, blunt) *a b*
P becoming flat, striate when moist, lurid, obscure olive, pale
 when dry *St* naked, whitish *G* adnexo-rounded, broad,
 crowded, brownish or brown
 Usually solitary Amongst grass and leaves, near chestnut trees, trunks
 Nov $1\frac{1}{2} \times 1\frac{1}{2} \times \frac{1}{8}$ in
- 868 P fœniscen** Quel (from its habitat, meadows, *fœniscia*, hay-
 harvest) *a b c*
P campanulate, obtuse, pale ferruginous-fuscon to deep umber,
 becoming paler in patches *St* pulverulent, then naked,
 rufescent, cinnamon or flesh-colour *G* adnato-ascending,
 ventricose, separating from stem, umber to black-purple
 Gregarious Fields, lawns, roadsides, manure, horse dung, common Feb -
 Dec $\frac{1}{2} \times 2\frac{1}{2} \times \frac{1}{16}$ in
- 869 P callosa** Quel (from the tough stem *callosus*, having a hard
 skin) *a b c*
P conico campanulate, obtuse, pale buff *St* smooth, paler
 than *P* *G* adnato-ascending, ventricose, sooty or purple-
 black
 Scattered or in small groups Fields, lawns, roadsides Aug - Oct
 $\frac{5}{16} \times 2\frac{3}{4} \times \frac{1}{8}$ in
- 870 P elivensis** Sacc (from the place where it was first observed,
 King's Cliffe, Northamptonshire) *a b*
P expanded shining-atomite, striate, pallid brown or ochre to
 white *St* silky, whitish *G* adnate, widely emarginate,
 ventricose, umber, edge white
 Amongst grasses, on downs June-Oct $1\frac{1}{4} \times 1\frac{1}{2} \times \frac{1}{8}$ in
- 871 P catervata** Mass (from its fasciculate habit, *caterva*, a troop)
a
P campanulate, obtuse, satiny, brittle, white *St* white *G*
 slightly adnexed, somewhat broad, crowded, purple-shaded or
 cinnamon, edge white
 On the ground Oct $\frac{5}{8} \times 2\frac{3}{8} \times \frac{1}{16}$ in

XXXVIII PSATHYRA Qué!.

(From the friable substance, Gr *psathuros*, friable)

Veil when present universal, floccoso-fibrillose, not annulate, sometimes obsolete. *Hymenophore* confluent with, but heterogeneous from the cartilaginous stem. *Pileus* conical or campanulate, then expanded, submembranous, margin at first straight and adpressed to

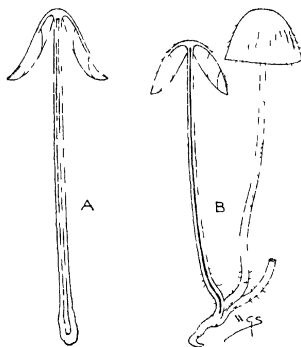


Fig. 47.—A, section of *Psathyra conopsea* Qué!.
B, *Psathyra conopsea* Sacc. entire and in section.
(One half natural size.)

the stem, except 884. *Stem* central somewhat cartilaginous, fistulose, lustrous, fragile, simple. *Gills* at first pale, becoming purple or fuscous. *Spores* purple, brownish-purple, dark purple or dark brown (Fig. 47).

The species grow on the ground, or on rotten wood, they are slender, fragile, hygrophanous and with fugitive colouring.

Psathyra agrees in structure with *Mycena*, *Nolanea*, *Galera* and *Psathyrella*.

Species 872—893

a Conopsea *Veil* obsolete. *Pileus* conico-campanulate. *Stem* tense and straight, fistulose. *Gills* usually adnexo-ascending, often free. On the ground in grassy or damp places. 872—877

b Obtusata *Veil* obsolete. *Pileus* campanulato-convex, becoming flat, smooth or atomate. *Gills* plano- or arcuato-adfixed. 878—880

c Fibrillosa *Pileus*—except 884 and 888—and stem at first fibrillose or floccose from the veil. *Stem* fistulose. 881—893

a Conopileæ

872 P elata Mass (from its long stem, *elatus*, tall) *a b c*

P even, glabrous, atomate, dark brown, pale ochreous when dry
St hollow, silky-shining, white *G* broadly adnate, crowded,
 purplish-brown

Amongst grass, on hedge banks Aug $2 \times 7\frac{3}{8} \times \frac{1}{2}$ in

873 P conopilea Quel (from the conical pileus) *a b c*

P even, smooth, whitish, greyish-brown or umber with marg
 tan *St* attenuate upwards, whitish, silvery-lustrous *G*
 slightly adnexed, subventricose, dark slate or fuscous-purple

Grassy places, gardens, ditch bottoms, under beeches, rare Sept-Nov
 $1\frac{1}{4} \times 4\frac{3}{8} \times \frac{1}{8}$ in Stem sometimes $6\frac{1}{2}$ in long Var *superba* W G Sm,
Agaricus superbus Jungh larger *P* chestnut brown to buff

874 P mastigera Sacc (from the breast-like shape Gr *mastos*,
 the breast, *gero*, I bear) *a b*

P acutely umbonate, dark chestnut-brown, umber-tan when dry
St fibrillose, furfuraceous or smooth, white *G* narrow,
 umber *Flesh* pale brown

Amongst grass, roadsides July-Nov $\frac{5}{8} \times 3\frac{3}{8} \times \frac{1}{8}$ in

875 P glareosa Sacc (from the habitat, gravelly soil, *glareosus*,
 gravelly) *a*

P obtuse or umbonate, minutely tomentose, atomate, striate,
 grey, mid pale chestnut *St* brown, white fibrillose *G*
 broadly adnate, umber *Flesh* brown

Gravelly soil after wet weather June $\frac{1}{4} \times 2\frac{1}{4} \times \frac{1}{8}$ in

876 P corrugis Quel (from the pileus, at length wrinkled, *corrugis*,
 having folds) *a b c*

P subumbonate or obtuse, smooth, substrate, whitish, pale rose,
 ochreous-tan or pale umber *St* smooth, colour as *P* *G*
 adnato-ascending or somewhat sinuate, pale, then purple-black
 or dark slate

Pastures, grassy places, open places in woods amongst grass and sticks, old
 manure patches, frequent April-Jan $1\frac{1}{4} \times 3\frac{1}{8} \times \frac{1}{8}$ in Stem some
 times 5 in long Var *vinosa* Mass *P* rosy vinous half way up Var
gracilis Mass more slender than type

876a P pellosperma W G Sm, *Agaricus pellospermus* Cooke
 (from the dark coloured spores, Gr *pillos*, dark coloured,
sperma, a seed) *a*

P subcampanulate or subovate, even, then striate, sometimes
 rugose, white or ochreous-white, becoming fuliginous with age
St fistulose, naked, nearly equal, white or as *P* *G* broad,
 free, much narrowed at the tips, cinereous, then fuliginous, at
 length black *Flesh* thin, white

On the ground Autumn $1\frac{3}{8} \times 4\frac{7}{8} \times \frac{1}{8}$ in

877. P gyroflexa Quel (from the weak flexuous stem, *gyrus*, a circle, *flexus*, bent) *a b*

P atomate, striate, whitish or pale grey, mid pale buff or rufescent *St* white, silky-shining *G* adnato-ascending, ventricose, greyish-purple to slate

Scattered or subcaespitose Margins of woods, amongst rubbish Aug
 $1\frac{1}{2} \times 2 \times \frac{1}{8}$ in

b Obtusata

878 P spadiceogrisea Quel (from the brown-grey pileus, *spadix*, bay-brown, *griseus*, grey) *a b c* Watery, fragile

P even, pellucid-striate to mid, date-brown, greyish and buff when dry *St* subpulverulent, striate above, whitish *G* adnate, crowded, narrow, umber-fuscous or brown

Solitary or gregarious, subcaespitose On trunks, old boards, chips, on the ground Aug-Nov $1\frac{1}{2} \times 3\frac{1}{2} \times \frac{1}{8}$ in

879 P obtusata Gill (from the obtuse pileus) *a b c*

P even, brown-fuscous or pale umber, paler and striate at margin *St* fibrilloso-silky, not pulverulent, even above, whitish *G* adnate, broad, subdistant, ashy-brown or umber

Single or caespitose Woods, on the ground, on wood, trunks, oak, rare June-Dec $1\frac{3}{4} \times 2\frac{1}{2} \times \frac{1}{8}$ in Stem sometimes rooting

880 P neglecta Mass (from its having been overlooked) *a b*

P almost plane, even, glabrous, atomate, pale rufous, almost white when dry, mid pale clay *St* somewhat wavy, pellucid, pruinose above, white, tinged pale rufous below *G* slightly attached, ventricose, crowded, pink then purple-brown

On the ground, gardens Oct-Nov $\frac{3}{4} \times 1 \times \frac{1}{12}$ in

c Fibrillosa

881 P frustulenta Sacc (from its fragility, breaking at a touch, *frustulentus*, full of pieces) *a*

P hygrophanous, glabrous, substrate, sienna-tan, tan when dry *St* subwavy, whitish *G* adnato-ascending, crowded, brownish

Gravel in damp places Sept $1\frac{1}{4} \times 2\frac{1}{4} \times \frac{1}{16}$ in

882 P bifrons Sacc (from the two-coloured pileus, *bifrons*, with two faces) *a b*

P obtuse, subwrinkled, ochreous-brown tinged with red, whitish when dry, evanescent white-fibrillose *St* subrooting, minutely satiny, fibrillose below, white *G* adnate, broad, ventricose, pink-cinereous, edge white

Sometimes two or three connate Woods, amongst sticks, twigs, chips, rare Aug-Sept $1\frac{1}{2} \times 3\frac{1}{2} \times \frac{1}{8}$ in Var *semitincta* Sacc *P* vinous purple, mid pale ochre

883 P semivestita Sacc (from the pileus white-fibrillose halfway to the middle, *semi*, half, *vestito*, to clothe) *a b*

P obtuse, chestnut-brown, tan when dry *St* fibrillose-silky, whitish *G* adnato-ascending, grey, becoming umber

Solitary and large, or caespitose and smaller Rich pastures, waysides, woods Oct Solitary $2\frac{1}{2} \times 4\frac{3}{8} \times \frac{1}{8}$ in Cæspitose $\frac{7}{8} \times 3\frac{1}{2} \times \frac{1}{8}$ in

884 P Loscosii Sacc (after Francisco Loscos) *a b*

P flat, radiato-pitted, sulcato-wrinkled, moist, cracking, atomate, tan-umber *St* striate, twisted, subfibrillose, elastic, tan, white-pruinose above, rufescent below *G* adnate, ventricose, thin, purple-umber with pale edge *Flesh* sienna

Cæspitose Taste and odour slight, fungoid Gardens, on mushroom bed Nov $2 \times 7\frac{1}{2} \times \frac{3}{8}$ in

885 P fatua Quél (from its resemblance to its allies, *fatuus*, foolish) *a*

P rugose, at length smooth, dingy-ochreous, then whitish, mid sienna *St* striate and mealy above, becoming smooth, white *G* adnato-ascending, crowded, brown

Gardens Autumn $1\frac{1}{2} \times 3\frac{3}{4} \times \frac{1}{8}$ in

886 P fibrillosa Quél (from the fibrillose covering) *a b*

P conical then flat, striate, becoming smooth, livid or whitish, the white fibrils becoming black with age or disappearing *St* white squamulose on pale steel-grey ground, or spreading white-fibrillose *G* adnate, pale slate then purple-black

Solitary Woods, damp places, rotten branches, sticks and leaves, rare Oct $2\frac{1}{2} \times 2\frac{1}{2} \times \frac{1}{8}$ in

887 P Gordonii Gill (after the Marchioness of Huntly) *a*

P sulcato-striate, pale cinereous to white *St* transversely undulate, white-pruinose above, then shining, smooth, white *G* ascending, narrowly adnate, cinereous

Densely caespitose Odour faint to strong and nauseous Stumps, amongst chips Oct $1\frac{1}{2} \times 2\frac{1}{2} \times \frac{1}{8}$ in

888 P helobia Sacc (from its habitat, Gr *helos*, a marsh, *bios*, life) *a c*

P flat, subumbonate, radiato-rugose, mid with concentric elevated ridges, sooty-brown, becoming ochreous-salmon or reddish *St* reddish-umber, salmon when dry *G* adnate, sooty-brown *Flesh* pale pink

Woods Sept $2\frac{1}{2} \times 5\frac{3}{4} \times \frac{1}{8}$ in Allied to 884

889 P pennata Quél (from the feathery scales, *penna*, a feather) *a b c*

P livid, whitish or pale brown, mid sienna, marg appendiculate with large white sc, then naked *St* villous, white pulverulent above, white *G* adnexo- or adnato-ascending, ventricose, fuscous-blackish

Gregarious Gardens, scorched ground, earth, burnt sawdust, rare June-Oct $1\frac{3}{8} \times 2\frac{3}{8} \times \frac{1}{8}$ in

- 890. P gossypina** Gill (from its cotton-like fibrils, *gossypium*, cotton) *a b c*
P expanded, ochreous-clay, mid pale sienna, marg striate
St whitish-tomentose *G* adnexed, ventricose, white, then fuscous-black
 Subcæspitose Woods, twigs, on the ground May-Oct $2\frac{1}{2} \times 2\frac{1}{8} \times \frac{3}{16}$ in
- 891 P noli-tangere** Quél (from its fragility, breaking at a touch, *noli tangere*, do not touch) *a b*
P expanded, obtuse, hygrophanous, pale umber when large, dark fuscous when small, becoming pale, marg striate, appendiculate with sc *St* subnaked, even, grey-white above, fuscous or slate below *G* adnexo- or adnato-rounded, fuscous *Flesh* pale brownish
 Gregarious Oak chips, amongst moss, damp sandy ground Sept-Dec $1 \times 1\frac{3}{8} \times \frac{1}{16}$ in
- 892 P microrrhiza** Sacc (from the small rooting stem, Gr *mikros*, small, *rhiza*, a root) *a b c*
P ochreous or rufous, at first yellow-pilose, then pale, atomate *St* attenuato-rooting, whitish-scaly *G* adnexo-ascending, black-brown
 Gregarious Gardens, on the ground Sept $1\frac{3}{8} \times 4 \times \frac{1}{16}$ in
- 893 P urticæcola** Sacc (from its habitat, nettle-roots *urtica*, a nettle, *colo*, to inhabit)
P white-flocculent, marg striate *St* white-flocculent *G* adnexo-ascending, rich chocolate
 At the base of old nettle stems Aug $\frac{5}{16} \times 1 \times \frac{1}{16}$ in

SERIES V COPRINARIÆ Fr

(From the habitat, Gr *kopros*, dung)

Spores black *Gills* from the first separate, not cohering and becoming fluid as in *Coprinus*

Intermediate between the preceding series and *Coprinus*

Genera XXXIX-XLI

XXXIX ANELLARIA Karst

(From the annulus, *anellus*, a little ring)

Val appendiculate at the margin of the pileus *Hymenophore* confluent with, but heterogeneous from the cartilaginous stem *Pileus* subfleshy, conico-campanulate, without striæ, shining when dry, not expanding, the margin exceeding the gills *Stem* central, lustrous, somewhat firm, fistulose, annulate *Gills* ascending, black or variegated slate-blackish, not deliquescent (Fig 48)

The species usually grow in rich grassy places or on dung, from summer to late autumn, often near towns and villages

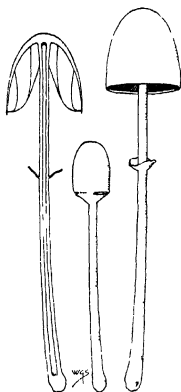


Fig 48 — *Anellaria separata* Karst
Entire and in section
One third natural size

The nearest structural allies are found in *Amanita*, and the non-British genera *Mitraria* and *Locullina* Species 894—896

894 A separata Karst (from its appearance, distinct from species placed near it) *a b c*

P whitish to tan-ochreous, mid sienna-tinted *St* attenuate upwards, colour as *P* *A* distant, persistent, white *G* adnato-ascending, broad, dark purplish-slate

In pastures on dung, common April-Dec $2\frac{1}{2} \times 6\frac{3}{4} \times \frac{1}{2}$ in Stem sometimes 8 in

895 A scitula Sacc (*scitulus*, handsome) *a b*

P dull pale ochre *St* white, base peronate, ending as a persistent *A* below mid *G* adnexo-ascending, ashy-grey to black *Flesh* white

On cow dung, on soil in a flower pot, Scarborough, 1885 $\frac{7}{16} \times 1\frac{1}{2} \times \frac{1}{16}$ in

896 A fimiputris Karst (from its habitat, rotten dung, *finus*, dung, *putris*, rotten) *a b c*

P innato-silky, pale umber to dark lead-colour, marg appendiculate with white V *St* colour as *P*, umber below *A* superior, small, imperfect *G* adfixo-ascending

Solitary, rarely cespitose Taste insipid Fields, gardens, horse dung, common April-Dec $1\frac{1}{2} \times 5\frac{3}{8} \times \frac{1}{2}$ in Examples with a wrinkled pileus must not be confounded with 900

XL PANÆOLUS Quél

(From the variegated gills, Gr *panaeolos*, all variegated)

Vel appendiculate at the margin of the pileus *Hymenophore* confluent with, but heterogeneous from the cartilaginous stem *Pileus* subfleshy, conical without striæ, not expanding, the margin exceeding the gills, viscid when moist, lustrous when dry *Stem* central, lustrous, somewhat firm, fistulose except 905—8, simple

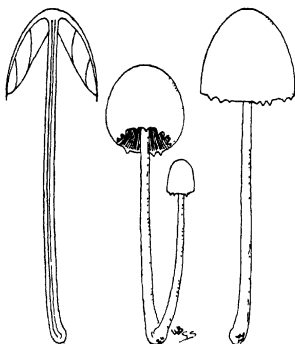


Fig. 49 — *Panaeolus campanulatus* Quél
One half natural size Entire and in section

Gills ascending, black or variegated slate-blackish, not deliquescent (Fig 49)

The species usually grow in rich grassy places or on dung from summer to late autumn, often near towns and villages.

The nearest structural allies are found in *Collybia*, *Leptonia*, *Naucoria* and *Psilocybe*

Species 897—908

Pileus conico-campanulate with a gelatinous-liquescient cuticle, viscid, shining when dry *Stem* fistulose, minutely so in 898 897—899

Pileus hemispherical to conico-campanulate, moist or damp, opaque, bibulous, somewhat flocculose when dry *Stem* fistulose 900, 901

Pileus hemispherical to conico-campanulate, dry, smooth, slightly shining, not zoned *Stem* fistulose 902—904

Pileus conical to campanulate, dry, smooth, zoned round the margin 905—908

897 P leucophanes Sacc (from its white appearance, Gr *leukos*, white, *phaino*, to appear) *a b*

P expanded, obtuse, innato-silky, white or faintly ochreous, marg appendiculate with V *St* mealy, fibrillose, white
G adnato-ascending, black with white edge

Pastures, grassy places, manure heaps Aug–Nov $1\frac{1}{2} \times 3\frac{3}{8} \times \frac{1}{8}$ in

898 P egregius Sacc (*egregius*, distinguished) *a b*

P slightly agglutinato-downy, watery, virgate when dry, bright orange-brown, mid darker *St* solid, attenuate upwards, fibrous, fibrillose, splitting longitudinally, warm umber, base white-cottony *G* adnexo-ascending, ventricose, crowded, brownish- or purple-black *Flesh* ochreous

Solitary Odour none On the ground, on horse-dung in fields Jan $2\frac{1}{2} \times 4\frac{3}{4} \times \frac{3}{8}$ in

899 P phalænarum Qué! (from the variegated gills, like the wings of certain moths, Gr *phallaina*, a moth) *a b c*

P obtuse, clay-white, marg appendiculate with fugacious V *St* subnaked, tan-rufescent *G* adnexo-ascending, broad, ventricose, ashy-black

Rich pastures, on dung Sept–Oct $1\frac{3}{4} \times 4\frac{1}{2} \times \frac{1}{8}$ in

900 P retrugis Gill (from the net-like wrinkles on the pileus, *rete*, a net, *ruga*, a wrinkle) *a b c*

P obtuse, atomate, fleshy-tan, mid ochreous-tan or dark umber with paler marg, appendiculate with V *St* pruinose, flesh-colour, then purplish, rufescent or cinereous *G* adfxo-ascending, cinereous-blackish

Sometimes fasciculate Dung, cow, manure heaps, woods, uncommon Feb–Nov $1\frac{1}{2} \times 4\frac{3}{4} \times \frac{1}{8}$ in

901 P sphinetrinus Qué! (from the pileus, contracted, never expanded, Gr *sphugktēr*, a muscle naturally contracted) *a b c*

P opaque, silky or fibrillose when dry, fuliginous or greyish-shaded, livid when dry, marg appendiculate with V *St* smooth, pruinose above, fuliginous-grey *G* adnato-ascending, crowded, cinereous-blackish

Pastures, on dung and on garden soil April–Nov $1 \times 3\frac{1}{4} \times \frac{1}{16}$ in

902 P papillonæus Qué! (from the speckled pileus, as in some butterflies, *papilio*, a butterfly) *a b c*

P rimoso-scaly when dry, dull tan whitish or greyish, mid faintly ochreous *St* white pulverulent above, whitish or faintly ochreous *G* adnato- or adnexo-ascending, broad, ventricose, blackish

Pastures, lawns, manured ground, dung, common July–Nov $1\frac{1}{2} \times 4\frac{1}{4} \times \frac{1}{8}$ in

903 P campanulatus Qué! (from the bell-shaped pileus, *campanula*, a little bell) *a b c*

P sometimes umbonate, not cracked, fuliginous-fuscous, or somewhat umber-slate with umber mid, sienna and umber or grey when dry *St* smooth, pruinose and grey above, rufescent

or purplish below *V* fugacious or obsolete *G* adnato-ascending, crowded, grey and black, edge whitish

Pastures, rich ground, horse dung, amongst grass, common June–Nov
 $1\frac{3}{8} \times 4\frac{1}{2} \times \frac{1}{8}$ in

904 *P. caliginosus* Gill (from its gloomy colour, *caligo*, gloom) *a b c*

P obtuse, even, smooth, ochreous-brown or grey *St* naked, rufescent-brown, lighter above *V* feeble or obsolete *G* adnato- or adnexo-ascending, ventricose, fuliginous-black

Rich pastures, lawns Oct–Nov $\frac{9}{16} \times 2\frac{3}{4} \times \frac{1}{16}$ in

905 *P. subbalteatus* Sacc (from the somewhat zoned margin of the pileus, *balteus*, a band) *a*

P obtuse or subumbonate, hygrophanous, irregular, subwrinkled, dull fawn or pale ochreous, mid pale sienna *St* splitting longitudinally, white-fibrillose, red-brown and ochreous above, pale sienna below *G* adnato-ascending, ventricose, brownish edge toothed, white

Cespitose Borders of fields, on the ground Sept–Oct $\frac{3}{4} \times 3\frac{3}{4} \times \frac{1}{16}$ in

906 *P. acuminatus* Quel (from the sharp apex of the pileus, *acuminatus*, sharp pointed) *a b*

P even, shining, flesh-tan, mid faint sienna *St* pruinose, tan above, fuscous below *G* adnexo-ascending, crowded, grey and black

Dung, roadsides Oct–Nov $\frac{7}{8} \times 1\frac{1}{2} \times \frac{1}{8}$ in

907 *P. fimicola* Quel (from the usual habitat, *finus*, dung, *colo*, to inhabit) *a b c*

P obtuse, smooth, opaque, fuliginous-grey, clay-hoary when dry, marg with a fuscous zone *St* slightly silky-striate, white-pruinose above, dingy below *G* adnato-ascending, ventricose, grey and fuliginous

Dung, rich pastures, rare Oct $\frac{7}{8} \times 3\frac{1}{4} \times \frac{1}{16}$ in

908 *P. cinetulus* Sacc (from the zone round the margin of the pileus *cinctus*, a girdle) *a*

P even, smooth, reddish-cinnamon, marg zoned, dark brown *St* dull fuscous *G* ascending, adnexo-free, dusky- or olivaceous-black or slate

Dunghills after rain June–July $2\frac{1}{2} \times 4\frac{1}{2} \times \frac{1}{8}$ in

XLI PSATHYRELLA Quel

(Diminutive of *Psathyra*)

Vel almost obsolete *Hymenophore* confluent with, but heterogeneous from the cartilaginous stem *Fileus* membranous, striate, margin not exceeding the gills, straight and at first adpressed to the stem *Stem* central, fistulose, simple *Gills* adnate or free, not variegated or becoming fuscous or purple, not deliquescent *Spores* black or nearly so (Fig 50)

The species grow on rich ground, in gardens, by hedges and stumps, sometimes on wood

Psathyrella agrees in structure with *Mycena*, *Nolanea*, *Galera* and
Psathyra Species 909—920

Pileus conical to campanulate *Stem* tense, straight, fistulose
 909—914

Pileus hemispherical to campanulate or conical *Stem* flexuous,
 pruinose at the apex, fistulose 915—920

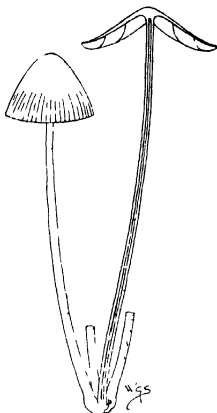


Fig 50 —*Psathyrella subatrata* Gill
 One half natural size
 Entire and in section

- 909 *P subatrata* Gill (from the blackish pileus, *ater*, black) *a b*
P obtuse, subexpanded, umber-rufescent, pallid-rufescent when dry *St* smooth, whitish *G* adnexo-ascending, crowded, fuliginous, blackish-umber
 Gregarious Rich ground, grassy places, woods Sept $2\frac{1}{2} \times 5\frac{3}{8} \times \frac{1}{8}$ in
- 910 *P gracilis* Quel (*gracilis*, slender) *a b c*
P obtuse, smooth, dark- or pale-fuliginous or livid with pale shades of rose, tan when dry *St* smooth, whitish *G* adnate, cinereous-blackish, edge rose
 Gregarious, waysides, hedgerows, etc, common July-Oct $1\frac{1}{2} \times 4 \times \frac{1}{8}$ in
- 911 *P hiaseens* Quel (from the pileus opening in furrows, *hiasco*, to gape) *a*
P expanded, obtuse, thin, cracked-revolute, white or warm tan, becoming pale tan-yellow, mid pale sienna *St* smooth, whitish *G* adnate, distant, black
 Grassy places, hedgerows, damp woods, rubbish heaps, rare Nov
 $1\frac{1}{8} \times 3\frac{1}{2} \times \frac{1}{8}$ in

- 912** *P arata* Sacc (from the furrowed pileus, *aro*, to plough) *a*
P attenuato-conical, deeply sulcate, sienna-brown *St* smooth,
 whitish or faint sienna-white *G* ascending free, purplish-
 black
 Hedgerows Autumn $1\frac{7}{8} \times 5\frac{1}{4} \times \frac{1}{8}$ in
- 913** *P trepida* Gill (from its trembling habit, *trepidus*, trembling)
a b c
P obtuse, smooth, fuliginous, mid date-brown *St* naked,
 tan-whitish *G* adnate, crowded, fuliginous-black
 Moist ground, bases of trunks, gardens Oct $\frac{7}{8} \times 3\frac{1}{2} \times \frac{1}{16}$ in
- 914** *P hydrophora* Quél (from its hygrophanous substance, *Gr*
hudor, water, *phero*, to carry) *a b c*
P expanded, obtuse, then cracked-revolute, mid rufous marg
 paler *St* white, studded with drops of moisture *G* adnate,
 crowded, black
 Gardens Autumn $1\frac{3}{4} \times 3\frac{1}{2} \times \frac{1}{8}$ in
- 915** *P caudata* Quél (from the tail-like base of the stem *cauda*, a
 tail) *a b c*
P gibbous then flat, smooth, sometimes areolato-cracked,
 atomate, date-brown or umber *St* with rooting base,
 undulate on surface, white *G* adnate, ventricose, ashy-black
 or dull purplish-brown
 Wooden pavement, rotten wood, rich soil, gardens, amongst dead leaves
 Sept-Dec $2\frac{3}{4} \times 4\frac{8}{8} \times \frac{1}{8}$ in
- 916** *P prona* Gill (from its frequent prostrate state, *pronus*,
 prostrate) *a b c*
P subexpanded, obtuse, subsilky, fuliginous, atomate and hoary
 when dry *St* smooth, whitish *G* adnate or adnexed, livid
 fuliginous, black-dotted
 Grassy places, rare May-Oct $\frac{5}{8} \times 1\frac{7}{8} \times \frac{1}{16}$ in Var *Smithii* Vass *P*
 hemispherical $\frac{1}{8}$ in in diam
- 917** *P empyreumatica* Sacc (from its odour of burning, *Gr*
empuros, scorched) *a b*
P hygrophanous, atomate, rufous, becoming pale *St* silky-
 furfuraceous, pale sienna *G* adnate with a tooth, distant,
 veined, rufous to brown-purple, edge pallid *Flush* colour as *St*
 Wooden pavement Oct $1\frac{1}{8} \times 2\frac{1}{2} \times \frac{1}{8}$ in Resembles 591
- 918** *P atomata* Quél (from the atomate pileus) *a b c*
P obtuse, hygrophanous, livid, tan or pale flesh-colour, sometimes
 reddish *St* white *G* adnate, cinereous-blackish or purple-
 brown
 Solitary or gregarious Woods, hedgerows, waysides, amongst leaves,
 common June-Jan $1 \times 2\frac{8}{8} \times \frac{1}{16}$ in
- 919** *P crenata* Gill (from the scalloped margin of the pileus,
crenatus, scalloped) *a b*
P hygrophanous, atomate, subochreous, rufescent or flesh-colour,
 then pale, mid sometimes sienna *St* attenuate below,

whitish *G* adnato-ascending, dull brownish-purple to blackish

Amongst grass, amongst beech leaves with 1973 Nov $1\frac{1}{2} \times 2\frac{1}{2} \times \frac{1}{8}$ in

920 *P disseminata* Qué! (from the scattered habit, *dissemino*, to scatter) *a b c*

P scurfy, then smooth, whitish or pale umber, then purple-grey and ashy, mid grey-umber *St* subscurfy, then smooth, whitish *G* adnato-ascending, blackish

Densely crowded, gregarious, caespitose About decayed stumps, poplar, willow, piles, in hedgerows, on brick walls, heaps of weeds and rubbish, etc April-Nov $\frac{1}{2} \times 2\frac{1}{2} \times \frac{1}{16}$ in

XLII COPRINUS Pers

(From the habitat, Gr *kopros*, dung)

Vel usually universal, floccose, furfuraceous or obsolete *Hymenophore* distinct from the stem *Pileus* at first cylindrical or ovate,

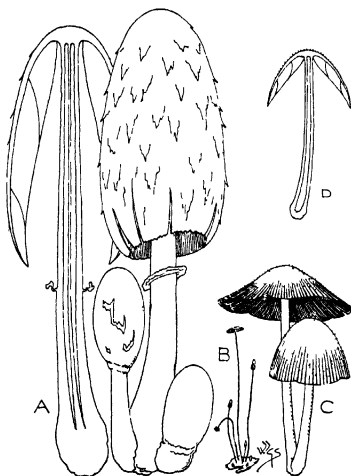


Fig 51—A *Coprinus comatus* Fr entire and in section
B, C *radiatus* Fr C *domesticus* Fr D, ditto in section
One third natural size

usually floccose or scurfy, margin at first straight and adpressed to the stem, flesh thin to membranous *Stem* central, hollow, usually

attenuate upwards, annulate, volvate or simple, confluent with or distinct from the hymenophore *Gills* membranous linear or ventricose, at first white and closely pressed together, cohering, scissile, at length melting into black fluid *Trama* obsolete *Spores* oval, even, black or dark brown (Fig 51)

The species are of rapid growth, often ephemeral They grow on rich and highly manured places in fields, parks, gardens and near human habitations, often on dung, sometimes on decaying wood, rotting straw, etc Some are edible Species 921—963

Mr George Massee, in a revision of the genus (Ann Bot 1 (1896), p 123), establishes new sectional characters, and the sequence of the species, as here given, is somewhat altered

PELLICULOSÆ *Pileus* with a pellicle not opening into furrows over the gills, but becoming torn and revolute

a Comatæ *Pileus* slightly fleshy, at first ovate, the cuticle torn into large or small scales from the concrete veil, margin striate or sulcate *Stem* annulate, volvate or both *Gills* free or remote 921—925

b Atramentariæ *Pileus* slightly fleshy, at first ovate, dotted or spotted with innate scurfy squamules from the veil *Stem* imperfectly ridged-annulate at the base *Gills* free 926—928

c Picacæ *Pileus* submembranous, at first continuous, then broken up into usually large flocculose superficial scales—warts in 932 *Stem* simple *Gills* free 929—932

d Tomentosæ *Pileus* membranous, at first evanescent-floccose or laxly villous from the veil, margin striate *Stem* simple *Gills*, except 936, free 933—937

e Micacæ *Pileus* membranous, covered with fine, evanescent scurf and minute glittering particles from the veil, margin striate or sulcate *Stem* simple, or with a slight basal annular ridge *Gills* reaching the stem, adnixed in 938 938—941

f Glabratiæ *Pileus* membranous, smooth, margin striate, veil obsolete *Stem* simple, smooth 942—946

VELIFORMES *Pileus* very thin, without a pellicle, opening into furrows over the gills and becoming plicato-sulcate *Veil* present *Stem* thin, fistulose *Gills* melting into thin, black lines 947—963

g Cyclodiæ *Pileus* membranous, striate *Stem* annulate or volvate *Gills* free 947, 948

h Lanatulæ *Pileus* submembranous to membranous, clothed with superficial, separating floccules *Stem* simple *Gills* free or remote 949—955

- i Furfurella* *Pileus* micaceous or furfuraceous, striate or sulcate
Stem simple *Gills* adnate, adnexed, free or remote

956—981

- j Hemerobia* *Pileus* smooth *Stem* simple 962

- k Basipedes* *Pileus* flocculose *Stem* dilated, disc-like at the base 963

PELICULOSÆ

a Comata

- 921 *C comatus* Pers (from the shaggy pileus, *coma*, a hair) *a b*

P cylindrical, then expanded, white, sc large *St* fibrillose, white *A* ragged movable, evanescent *Vo* adnate, almost obsolete *G* white, through reddish and purple to black

Often crepitose Edible when young, used for inferior ketchup, sometimes candied with sugar, sold in American markets, at Boston, as the "English Mushroom" Gardens, parks, fields and roadsides often near human habitation, on the ground, on rotten leaves, frequent April–Nov $4\frac{1}{2} \times 8\frac{1}{4} \times \frac{3}{4}$ in

- 922 *C ovatus* Fr (from the egg-shaped pileus, *ovum*, an egg) *a*

P at length expanded, densely imbricato-scaly, white, mid pale buff *St* flocculose, rooting, scaly *A* ragged, movable, evanescent *Vo* adnate, almost obsolete *G* white to umber-blackish

Usually solitary Rich ground, pastures $3 \times 5\frac{1}{2} \times \frac{3}{8}$ in Intermediate forms occur between this and 921

- 923 *C umbrinus* Cooke & Mass (from the colour of the pileus) *a*

P campanulato-plane then revolute, dark umber, sc white *St* subrooting, bulbous from the *Vo*, lustrous dark umber *G* black, edge white *Flesh* pale umber

Manured ground Aug $2 \times 6\frac{1}{2} \times \frac{3}{8}$ in Perhaps a form of *C stenocoleus* Linnbl

- 924 *C sterquilinus* Fr (from the habitat, *sterquilinum*, a dunghill) *a*

P campanulato-expanded, whitish, marg pale umber, sc small *St* whitish *A* inferior, sometimes forming an adnate *Vo* *G* slate-purple

Dung, cow, manured grounds, dung heaps, rare July–Aug $2 \times 4\frac{3}{4} \times \frac{1}{8}$ in

- 925 *C oblectus* Fr (from its growing on—delighting in—dung, *oblecto* to delight) *a*

P expanded, minutely scaly, then silky-smooth, white then sienna, mid ochreous, marg dull purplish *St* silky-white *Vo* large, free, spreading *G* black

Newly made dunghills, manure-heaps, streetsweepings Nov $1\frac{1}{2} \times 4\frac{1}{2} \times \frac{1}{4}$ in A close ally of 924 Mr C Crossland, who has found this plant at Halifax, says that the pileus is covered with white silky scales and always passes from white through bright flesh colour to black, and the annulus sometimes projects nearly $\frac{1}{4}$ inch from the stem In 924 the gills are at length ventricose, but in this plant, as described by Bolton, they are linear and slightly arcuate and pass from white through purple to black In 924 the stem turns black when bruised, but there is no change of colour in the Halifax plant

925a C squamosus Morg (from the scaly pileus and stem, *squama*, a scale) *a*

P submembranous, ovoid then expanded, cinereous, covered with persistent reddish-brown sc, becoming split and revolute *St* hollow, almost equal, smooth and white above, scaly as *P* below *A* median, small *G* free, ventricose, white, then reddish-brown and purple-brown, becoming black

Cæspitose Base of trunks, elm Sept $3\frac{1}{2} \times 4\frac{1}{2} \times \frac{3}{8}$ in

b Atramentariae

926 C atramentarius Fr (from the ink-like fluid into which the gills deliquesce, *atramentum*, ink) *a b c*

P campanulato-expanded, ribbed, sulcate, slate-white, then slate-purplish *St* fibrillose, white, pale umber at base *A* forming a fugacious ridge near base of *St* *G* grey-umber to umber-purple and black

Cæspitose Said to be edible, used for inferior ketchup, preferred by some to 921 Rich soil by grassy roadsides, near stumps, usually near human habitations, amongst rubbish, has appeared in abundance on burnt coffee, rich soil, does not grow on dung, common June-Nov $3\frac{1}{2} \times 6\frac{3}{4} \times \frac{3}{8}$ in A group of this fungus lifted a large mass of asphalt paving in Hampton Road in 1889, a similar occurrence took place at Dunstable in 1899

927 C soboliferus Fr (from its cæspitose habitat, *soboles*, an offshoot, *fero*, to bear) *a b*

P irregularly conical, abruptly truncate, then expanded, ribbed, grey, mid pale sienna-brownish *St* furrowed, bluntly rooting, whitish *A* forming a fugacious ridge near base of *St* *G* dark brown-purplish or blackish

Cæspitose Base of rotten wooden palings, fences, stumps, elm Spring and Autumn $2\frac{1}{2} \times 8 \times \frac{3}{4}$ in The mycelium produces two crops annually Intermediate forms between this and 926 occur Sometimes both forms grow in one group

928 C fuscescens Fr (from the dusky colour of the pileus, *fuscus*, dark, swarthy) *a b*

P campanulate, then revolute, somewhat ribbed, tan mid brownish, marg purplish *St* whitish *A* forming a fugacious ridge near base of *St* *G* purple-umber to black

Cæspitose Stumps, rotten wood, wood in cellars, elm, in woods, uncommon May-Dec $2\frac{3}{8} \times 4\frac{1}{2} \times \frac{1}{2}$ in Var *rimososquamosus* Cooke *P* cracked into angular squamose patches

c Picaceæ

929 C picaceus Fr (from the white patches on the black ground of the pileus, *pica*, a magpie) *a b c*

P campanulato-expanded, very smooth, then revolute *St* smooth, somewhat bulbous, biscuit, furfuraceous below *G* ventricose, grey, then black

Somewhat cæspitose Considered poisonous Odour often fetid Grassy places, roadsides, borders of woods, beech, rarely on rotten wood, rare Sept-Dec. $4 \times 11 \times \frac{1}{2}$ in

930 C aphthosus Fr (from the pileus, like a "thrush"-diseased tongue, Gr *aphthas*, the "thrush") *a b*

P campanulate, pale dull ochreous, sc darker, grey-brown or dull sienna *St* fibrillose, glossy white *G* adnate, linear, black

Subcæspitose Hollow trees, wood in cellars, kitchens, rare Autumn
 $1\frac{1}{2} \times 3\frac{1}{2} \times \frac{3}{8}$ in Var *Boltonii* Mass *P* repand, olivaceous

931 C flocculosus Fr (from the white-floccose scales of the pileus) *a*

P campanulate, pale purplish-grey-tan, mid brownish, marg striate *St* whitish *G* slate-purple to fuscous-black

Usually solitary, sometimes cæspitose Pastures, gardens, rare June-Sept
 $4 \times 5 \times \frac{3}{8}$ in

932 C similis B & Br (from its resemblance to 930, *similis*, like) *a*

P campanulate, biscuit-white, sc wart-like, acute, brownish at apex marg striate *St* white *G* adnate, sublinear, brownish near edge

Trunks of dead trees Sept $1\frac{1}{2} \times 3 \times \frac{1}{8}$ in

d TomENTOSÆ

933 C exstinctorius Fr (from the pileus, shaped like an extinguisher, *exstinctor*) *a b c*

P campanulate, tan- or ochreous-white, mid livid, marg splitting *St* subrooting, becoming smooth whitish *G* lanceolate, fuscous-blackish to black

On the ground, sandy places, about trunks, ash Sept $3 \times 6 \times \frac{1}{4}$ in

934 C fimetarius Fr (from the habitat, *fimetum*, a dunghill) *a b c*

P campanulato-expanded, then cracked and revolute, white-floccose, becoming grey-slate and black *St* subrooting, white villous *G* narrow-lanceolate, black

Frequently clustered, sometimes solitary Dung, horse, rich soil, common April-Oct $2\frac{3}{8} \times 8\frac{1}{2} \times \frac{3}{8}$ in Var *pullatus* Fr *P* soon naked and black Dunghills, rich meadows Var *macrorrhizus* Fr *St* bulbous, rooting Var *cinereus* Fr *P* ashy grey

935 C tomentosus Fr (from the downy pileus, *tomentum*, down) *a b*

P campanulato-expanded, flocculose, grey-white *St* white-villous *G* narrow-lanceolate, fuscous-blackish, edge at first white

Subcæspitose Dung, rich pastures, gardens Sept $2\frac{1}{2} \times 3 \times \frac{3}{8}$ in

936 C niveus Fr (from the snow-white pileus, *nix*, *nivis*, snow) *a b c*

P at length flat, revolute, mealy-floccose or squamulose *St* white-downy, sometimes imperfectly annulate *G* adnexed or adnate, blackish to black

Cæspitose Dung, horse, deer, sometimes invading mushroom beds June-Dec $2\frac{1}{2} \times 4\frac{1}{2} \times \frac{3}{8}$ in There is a var with white gills and (when present) colourless spores

938a C roseotinctus Rea (from the rose-coloured meal on the pileus and stem) *a*

P membranous, cylindrical, then expanded and revolute, umbonate, fuscous, densely powdered with deep rose-coloured meal, marg sulcate *St* hollow, semibulbous below, when young powdered as *P*, less so at maturity, base white-floccose *G* adnexed, at first white, becoming black

On the ground Aug $1\frac{1}{2} \times 2\frac{3}{8} \times \frac{1}{16}$ in Allied to **936** and **946a**

937 C cothurnatus Godey in Gill (from the stem, sheathed with woolly squamules at the base, as if buskined, *cothurnus*, a buskin) *a b*

P conico-expanded, revolute, reddish-white or pale buff *St* white *G* narrow lanceolate, salmon to blackish

Dung, cow Autumn $1\frac{1}{2} \times 1\frac{1}{8} \times \frac{1}{8}$ in

c Micaceæ

938 C micaceus Fr (from the minute shining particles on the pileus, *mica*, a shining grain) *a b c*

P campanulato-expanded, lobed, splitting, yellow-ferruginous, mid darker, marg plicate, becoming purple-brown *St* white-silky or fibrillose, with an annular ridge near base, white or pale ochreous-whitish *G* adnexed, purple-brown to dark slate

Densely clustered Amongst grass, at base of stumps and posts gardens, common Jan-Nov $2\frac{1}{2} \times 7 \times \frac{3}{16}$ in Two to three crops annually Pileus sometimes white

938a C truncorum Fr (from its habitat, tree-trunks) *a*

P at first globose, then campanulate, densely covered with micaceous meal, soon naked, then tawny ochreous marg striate, not becoming sulcate *St* glabrous, hollow, white *G* free, rosy, then black

Rotten willows, etc $1\frac{1}{2} \times 2\frac{3}{8} \times \frac{1}{8}$ in Distinguished from **938** by the *P* being at first globose, with marg striate, not plicate, and with free rosy gills

939 C aratus B & Br (from a fancied resemblance in the sulcate pileus to furrows, *aro* to plough) *a b*

P campanulate then revolute, umber *St* smooth or silky, with a slight annular ridge near base, white, pale sienna-tan within *G* lanceolate, dark brown to purple-brown and black

Solitary Hollow trees, rich ground, dunghills May-Aug $2\frac{3}{4} \times 6\frac{1}{2} \times \frac{1}{4}$ in

940 C radians Fr (from the radiating mycelium at the base of the stem) *a b c*

P campanulato-expanded, then revolute, tawny mid sienna *St* at first with an annular ridge, then smooth, white or faintly ochreous *G* lanceolate, reddish-purplish-brown to violaceous-black

Subcæspitose Damp plaster walls, sculleries, cracks in ceilings, uncommon Jan-July $1\frac{3}{4} \times 4\frac{1}{2} \times \frac{1}{8}$ in The usually white or olive ochre mycelium is sometimes black, resembling radiating threads of black silk

941 C papillatus Fr (from the minute umbo on the pileus, *papilla*, a teat) *a b*

P campanulato-flat, then revolute, um prominent, ochreous-umber, mid darker *St* smooth, flocculose below, whitish *G* ventricose, blackish

On the ground, amongst grass, dung June $\frac{1}{2} \times 1\frac{1}{2} \times \frac{1}{8}$ in Less fugacious than other *Coprini* Var *oxygena* Fr, whitish or greyish *P* and *St* springly flocculose

f Glabrate

942 C alternatus Fr (from the striæ of the pileus, alternately broad and narrow) *a c*

P hemispherical, whitish mid umber, sometimes pale *St* whitish *G* adnate, narrow, purple-black to black

Subcæspitose On the ground $1\frac{1}{4} \times 4\frac{1}{4} \times \frac{3}{8}$ in

943 C deliquescens Fr (from the dissolving gills, *deliquesco*, to dissolve) *a c*

P campanulato-expanded, grey or livid marg granuloso-punctate, faintly ochreous *St* shining white *G* free, slate to blackish

Subcæspitose Stumps, amongst fallen leaves, thatch, frequent Aug - Sept $2\frac{1}{4} \times 4 \times \frac{1}{8}$ in

944 C tardus Karst (from its sometimes late appearance, *tardus*, slow, late) *a b*

P campanulato-expanded, viscid, bright brown to pale ochreous-tan *St* thinly pruinose, shining white, minutely striate above, woolly below *G* adnexed, brown to shining black

Densely cæspitose Odour none On the ground Oct $2\frac{1}{2} \times 6\frac{1}{4} \times \frac{3}{8}$ in Brittle, hygrophanous

945 C digitalis Fr (from the finger-like young state, *digitus*, a finger) *a*

P conico-hemispherical, faint ochre, mid sienna, then yellowish-grey or olive tinted *St* faint ochreous-white *G* adnexed, blackish

Tufted On the ground, woody places Autumn $1\frac{1}{4} \times 4\frac{1}{4} \times \frac{3}{8}$ in

946 C congregatus Fr (from the densely cæspitose habit), *a b c*

P campanulato-expanded, viscid, ochreous, mid sienna *St* faintly ochreous-white *G* adnexo-free, linear, black

On the ground by roadsides, hothouses Oct - Nov $1 \times 1\frac{1}{8} \times \frac{1}{8}$ in

VELIFORMES

g Cyclodææ

946a C dilectus Fr (from its beauty, *dilectus*, beloved) *a b*

P cylindrical, then campanulate, obtuse, floccose or mealy, rosy-white, then pale, tawny, marg finely striate, at length splitting and becoming revolute and naked *St* hollow, whitish,

sprinkled rosy-pulverulent *Vo* reduced to whitish spreading sq *G* free, sublanceolate, reddish-brown, then black

Cæs pitose On the ground, on dead and on partially buried hawthorn sticks
Nov $\frac{7}{8} \times 2\frac{3}{4} \times \frac{1}{10}$ in Allied to 938a Differing from 925 in very rudimentary volva and generally smaller size

947 C Hendersonii Fr (after J L Henderson) *a b c*

P campanulato-expanded, minutely granular, tan, mid sienna, marg grey *St* tan *A* inferior, erect *G* subdistant, black, edge white

Hotbeds, in fields on dung, horse, cow, rare Feb-Sept $\frac{1}{2} \times 1 \times \frac{1}{32}$ in

947a C Bresadolæ Schulz (after J Bresadola)

P subcylindrical, membranous, greyish-white, faintly brownish at mid *St* hollow, attenuate upwards, glabrous, white *A* deciduous *G* narrow, crowded, black, with a white edge

Gregarious Odour none On wood, squared wood, near woods $\frac{5}{8} \times 4\frac{3}{4} \times \frac{1}{8}$ in
Not unlike a small 926, but whiter in colour

948 C volvaceominimus Crossl (from its volva and small size) *a*

P campanulate, ashy-grey, white-squamulose, mid darker *St* hyaline *G* adnexo-free, linear, blackish-purple

Decaying straw on dunghills $\frac{1}{16} \times \frac{7}{8} \times \frac{1}{32}$ in

h Lanatulæ

949 C lagopus Fr (from the woolly stem, like a hare's foot, Gr *lagopus*) *a b*

P campanulato-expanded, whitish or greyish, mid sienna *St* densely white-woolly *G* remote, linear, black

Sometimes cæs pitose Inodorous Rich soil, dung, rotten wood, shady places in woods, rooting in rotten sawdust, rare July-Oct $2\frac{1}{2} \times 5\frac{1}{2} \times \frac{1}{4}$ in

950 C narcoticus Fr (from the opium-like odour) *a b*

P campanulato-expanded, then revolute, villous-scaly, then naked, white or greyish, mid pale sienna *St* villous, then smooth, faintly ochreous-white *G* lanceolate, blackish

Odour very powerful, like opium, but fetid, or narcotic-alkaline, like 1211
Manure-heaps Oct $1 \times 1\frac{1}{4} \times \frac{1}{16}$ in

951 C tuberosus Quel (from the tuber at the base of the stem) *a*

P campanulato-expanded, then revolute, striate, white-pulverulent *St* attenuate above and below, villous-white, springing from a comparatively large sclerotium *G* linear, violet-black

Dung, cow, decaying vegetable matter Oct-Dec $\frac{3}{8} \times 2\frac{3}{4} \times \frac{1}{16}$ in

952 C macrocephalus Berk (from the long-headed young state, Gr *makros*, long, *kephale*, the head) *a*

P campanulate, slate, mid brown, white-scaly *St* downy, sprinkled with fine spreading fibres, dull white *G* linear, black

Subcæs pitose Putrid dung, rare March-Sept $1 \times 2 \times \frac{1}{16}$ in

953 C nycthemerus Fr (from its length of life, a night and day,
Gr *nycthemeron*) *a b*

P at length flat, then revolute, furturaceo-flocculose, then naked, grey, mid sienna *St* flaccid, smooth, white *G* linear, blackish

Subcæspitose Dun., manured ground, decayed straw, tan, rare July-Oct
 $1\frac{1}{2} \times 3 \times \frac{1}{2}$ in Sometimes very small

953a C cordisporus Gibbs (from the heart-shaped spores, *cor*, the heart, Gr *sporos*, a seed) *a*

P cylindrico-ovate, then expanded and upturned, very thin, plicato-sulcate, marg crenate, whitish or pallid ochraceous, furfuraceo-papillose and tawny at mid *St* filiform, glabrous, except at the densely strigoso-squamulose base, whitish hyaline *G* free, somewhat narrow *Spores* heart-shaped, compressed

Dung, horse, sheep, rabbit April $1\frac{5}{8} \times 1 \times \frac{3}{4}$ in

954 C radiatus Pers (from the radiating striæ or furrows of the pileus) *a b c*

P at length flat, downy, then naked, whitish, soon translucent, mid pinkish-sienna *St* minutely pruinose or smooth, hyaline *G* few, pallid-blackish

In troops In fields on dung, horse, cow, common May-Nov $\frac{3}{8} \times 3 \times \frac{1}{4}$ in
Often minute

954a C Gibbsii Mass & Crossl (after Thomas Gibbs of Sheffield, the first observer) *a*

P hemispherical, then expanded, striate, glabrous, minutely atomate, pale ochreous or very pale buff, mid darker *St* very slender, glabrous, pellucid shining white, attached by a few white strands of mycelium *G* adnate, 5-7 in number

Dung, sheep, horse Nov $\frac{1}{2}$ in high Probably the smallest agaric known, differs from 954 in its smaller size, glabrous pileus and stem, and in its circular, compressed spores

955 C Spraguei Berk & Curt (after Charles J Sprague) *a*

P campanulato-expanded, tomentose, grey, mid sienna *St* pale cinnamon *G* few, narrow, grey-black

Gardens July $\frac{1}{4} \times 2\frac{1}{2} \times \frac{1}{8}$ in

1 *Furfurellæ*

956 C domesticus Fr (from its usual habitat, *domus*, a house) *a b c*

P campanulato-expanded, furfuraceous, whitish, greyish or brownish, mid sienna *St* adpressedly silky, white *G* adnexed, linear, reddish to fuscous-blackish

Often cæspitose In and near human habitations, greenhouses, gardens, cellars, cupboards, ceilings, under floors, on burnt ground matting, damp carpets, rubbish, etc, frequent April-Dec $3 \times 3\frac{1}{2} \times \frac{1}{4}$ in Sometimes very light in colour

957. C stereorarius Fr (from the habitat, *stercus*, dung) *a b c*

P campanulato-expanded, then revolute, clad with dense white micaceous meal, mid pale sienna, marg faint greyish or brownish *St* pruinat, white *G* adnexed, narrow, black

Rich soil, dung, roadsides $1\frac{1}{2} \times 4\frac{1}{2} \times \frac{1}{8}$ in Brefeld illustrates this plant as growing from a sclerotium Must not be confused with 936, which is usually much smaller and with a white floccose pileus

957a C stellaris Qué! (from the pileus splitting in a star-like manner) *a*

P ovoid then campanulate, striate, afterwards split in star-shape and crowned with points formed of minute diaphanous vesicles, white, becoming grey *St* filiform, fistulose, hyaline, velvety with long silky hairs, white *G* narrow, adnexed, attenuate, greyish then sooty brown

Dung, fox, man Spring and Summer $\frac{1}{10} \times \frac{3}{8} \times \frac{1}{10}$ in

958 C ephemerus Fr (from its length of life, Gr *ephemeros*, lasting for a day) *a b c*

P campanulato-expanded, delicately scurfy, white mid prominent, faint sienna, marg greyish *St* smooth, whitish, *G* adnexed, linear, fuscous then black

Dunghills, manured ground, roadsides, common May-Oct $1\frac{1}{2} \times 2\frac{1}{2} \times \frac{1}{8}$ in Must not be confounded with 960, which has a depressed disc to the pileus

958a C velox Godev in Gill (from its rapid growth, *velox*, swift) *a*

P obovate, striate then plicato-sulcate, scurfy between the furrows and on the mid, grey *St* white-floccose *G* narrow, grey then black

Dung, ox, horse $\frac{3}{8} \times 2\frac{3}{8} \times \frac{1}{10}$ in Must not be mistaken for 954a

958b C aquatilis Peck (from its habitat, watery places, *aqua*, water) *a*

P ovate, then campanulate, coarsely sulcate to mid, at first somewhat furfuraceous, when young pale orange, then red-brown, mid darker *St* somewhat swollen at base, hollow, smooth below, pulverulent above, dull white *G* adnexed, grey then black *Flesh* in *P* pale orange

Decaying twigs, moss, *Lucula sylvatica*, etc, partly submerged in shaded swamps June $1 \times 2\frac{1}{2} \times \frac{1}{2}$ in

959 C sociatus Fr (from its habit, growing in groups, *socio*, to associate) *a*

P at length expanded, slightly scurfy, umbilicate, fuscous, mid brown, becoming pale *St* white *G* adnexed, ashy-black

Damp, loose soil, gardens, walls Oct $1\frac{1}{2} \times 2$ in

960 C plicatilis Fr (from the folds or furrows of the pileus, *plico*, to fold) *a b c*

P expanded, grey and livid-umber, mid depressed, sienna *St* smooth, pallid to ochreous *G* remote, linear, slate

Pastures, gardens, roadsides, under trees, woods, common April-Oct $1\frac{1}{2} \times 4 \times \frac{1}{8}$ in Sometimes very small

- 961 *C filiformis* B & Br (from the thread-like stem, *filum*, a thread) *a*

P campanulato-expanded, grey, white-mealy, mid sienna *St* pallid or white *G* linear, adnate, blackish

On the ground in woods Sept $\frac{1}{8} \times \frac{1}{16} \times \frac{1}{32}$ in

j Hemerobius

- 962 *C hemerobius* Fr (from the length of its life—one day, *Gr humera*, a day, *bios*, life) *a*

P campanulato-expanded, umber *St* smooth, pallid *G* adnate, linear, blackish

Damp, shady, rich grassy places, roadsides, etc, rare Sept–Oct $1\frac{3}{8} \times 5 \times \frac{1}{4}$ in

k Basipedes

- 963 *C PLATYPUS* Berk in Cooke (from the basal disc, *Gr platus*, broad, *pous*, a foot) *a*

P campanulato-expanded, white, then ochreous, mid umber *St* even, whitish *G* free, narrow, distant, white

Palm stems in conservatories $\frac{3}{16} \times \frac{1}{16} \times \frac{1}{32}$ in

XLIII **BOLBITIUS** Fr

(From a frequent habitat of the species, *Gr bolbiton*, cow-dung)

Veil rudimentary, indicated by squamules on the pileus or stem, or obsolete *Hymenophore* distinct from the stem *Pileus* moist,

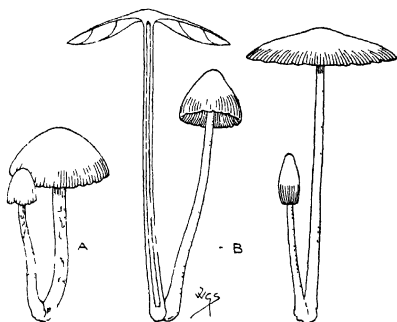


Fig 52 —A, *Bolbitus Boltonii* Fr B, *B. fragilis* Fr, entire and in section
One half natural size

mucid or viscid, fleshy-membranous to membranous, at first conical or ovate with the margin adpressed to the stem, usually yellow or

salmon, margin striate or sulcate *Stem* central, simple, equal or attenuate upwards, fistulose *Gills* adnexed or free, membranous, becoming moist, not deliquescent *Spores* somewhat ferruginous or salmon (Fig 52)

A group of species resembling the *Coprini* in habit and short life, but not deliquescent They chiefly grow on dung or manured ground, often near and in roads, frequently near towns, villages and human habitations None are edible Species 964—973

964. B grandiseulus Cooke & Mass (from its well-grown appearance, *grandiseulus*, well-grown) *a b*

P campanulato-expanded, papillose, ochreous-tan, mid brownish-orange, marg whitish-salmon *St* white *G* linear, adnexed or free, orange or rusty-ochre

Amongst grass Autumn $2 \times 4\frac{1}{2} \times \frac{1}{8}$ in

965 B flavidus Mass (*flavus*, light yellow) *a b*

P campanulato-expanded, glutinous, olivaceous-ochre, mid somewhat elevated, sienna, marg striate *St* pale yellow within and without, fibrillose below, faintly olivaceous *V* fugacious, white *G* adnexo-free, white, yellow then dusky brown

Dunghills after rain, rotten cloth in wood June-Aug $2\frac{1}{2} \times 2\frac{1}{2} \times \frac{3}{16}$ in
"Whole plant dissolves in a brown jelly," Bolton

966 B Boltonii Fr (after James Bolton of Halifax) *a b*

P flat, sulcate, viscid, sulphur-white, then dull salmon-whitish, mid somewhat depressed *St* floccose, sulphur-white *V* fugacious *G* subadnate, white to yellow, pale dull salmon or livid brown

Heaps of leaves and dung May-Sept $1\frac{1}{2} \times 3 \times \frac{1}{8}$ in

967 B vitellinus Fr (from the colour of the pileus, like yoke of egg, *vitellus*) *a*

P campanulate, lobed, sulcate, viscid *St* white squamulose, faint sulphur at base *G* slightly adnexed or free, ochreous-tan

Rich pastures, dung, horse Autumn $1\frac{1}{2} \times 3\frac{1}{2} \times \frac{3}{16}$ in

968 B fragilis Fr (from its fragility) *a b c*

P flat, viscid, sulphur-white, straw or yellow *St* at first covered with fine matted down, colour as *P* *G* attenuato-adnexed, yellow, faintly olivaceous then pale cinnamon

Road drift and dung, horse, roadsides, common April-Nov $2\frac{1}{2} \times 4\frac{1}{2} \times \frac{1}{8}$ in

969 B titubans Fr (from its tremulous habit, *titubans*, shaking) *a b c*

P flat, subdepressed, viscid, faint salmon-purplish, mid faintly ochreous *St* even, shining-yellowish, sometimes white, squamulose at base *G* adnexed, narrow, colour as *P*

Odour unpleasant Grassy richly manured soil, mushroom beds, by rotten stumps, common May-Oct $2 \times 3\frac{1}{2} \times \frac{1}{8}$ in

- 970 **B apicalis** W G Sm in Cooke (from the well defined apex of the pileus) *a b*
P conical, plicate to apical disc, tan-sienna or tan-umber, mid abruptly ochreous *St* striate, minutely pruinose, salmon-whitish *G* free, ventricose, sienna
 Pastures June $\frac{1}{2} \times 1\frac{1}{2} \times \frac{1}{16}$ in
- 971 **B niveus** Mass (from the white pileus, *niveus*, snowy) *a b*
P campanulato-expanded, striate halfway, subumbonate, slightly viscid mid cracked-areolate, faint ochre *St* clavato-bulbous, striate above, mealy-pruinose, white *G* free to adnate, whitish to rufescent salmon
 On earth, in palmhouse at Kew $1\frac{1}{2} \times 4\frac{1}{4} \times \frac{1}{8}$ in Very delicate and fragile
- 972 **B tener** Berk (from its tender substance, *tener*, tender) *a b*
P smooth, even, white, mid faintly ochreous, marg faint salmon, sometimes wholly salmon *St* bulbous, white *G* adnixed, salmon
 Rich grassy ground, uncommon May-Sept $1 \times 3\frac{1}{2} \times \frac{1}{16}$ in Sometimes 8 ins high
- 973 **B rivulosus** B & Br (from the rivulose pileus) *a*
P campanulate, dull tan or clay *St* white *G* free, narrow, cinnamon
 Earth in orchid house July $1\frac{1}{2} \times 3 \times \frac{1}{8}$ in

XLIV CORTINARIUS Fr

(From the *cortina* or *veil*)

Veil single, partially double or double When single there is only an arachnoid cortina extending from the margin of the pileus to the stem, on the latter of which it often forms a more or less perfect fibrillose zone When partially double the pileus and stem are more or less fibrous and the arachnoid cortina distinct When double the whole plant is enveloped in infancy in a veil of gluten from which the arachnoid cortina is distinct *Hymenophore* continuous with the stem *Pileus* more or less fleshy *Stem* central, more or less viscid, annulate from the veil or fibrillose-zoned from the cortina, annulus and zone often evanescent *Gills* usually adnate, but sometimes adnixed, free or sinuate with a decurrent tooth, membranous, persistent, arid, at first often purple or blue changing to cinnamon—from the spores *Spores* the colour of iron-rust, rusty-ochre, somewhat ochreous or pale or dark cinnamon

The species are variable in size and changeable in colour, purple and blue being common in infancy, they present a different appearance in different stages of growth and according as they are moist or dry, young as well as mature examples must therefore be studied All are terrestrial except 1140, which sometimes grows on wood

Some species of *Pholiota* and *Flammula* somewhat resemble the

Cortinarius, but these usually grow upon stumps and are structurally distinct Species 974—1167

SUBGENUS 1 **PHLEGMACIUM** *Veil* partial *Pileus* viscid *Stem* dry
974—1021

SUBGENUS 2 **MYXACIUM** *Veil* universal *Pileus* glutinous *Stem*
glutinous 1022—1034

SUBGENUS 3 **INOLOMA** *Veil* single *Pileus* fleshy, silky or
fibrillose, then smooth *Stem* somewhat bulbous Not
hygrophanous 1035—1057

SUBGENUS 4 **DERMOCYBE** *Veil* single, fibrillose *Pileus* thinly
fleshy, innato-silky, then smooth, dry *Stem* equal Not
hygrophanous 1058—1085

SUBGENUS 5 **TELAMONIA** *Veil* universal, somewhat double *Pileus*
thin, moist, smooth or sprinkled with whitish fibres *Stem*
annulate or peronate with scales Hygrophanous 1086—1128

SUBGENUS 6 **HYDROCYBE** *Veil* thin, fibrillose *Pileus* smooth or
superficially white-fibrillose, not viscid, changing colour when
dry *Stem* somewhat rigid, sometimes irregularly annulato-
zoned 1129—1167

SUBGENUS I **PHLEGMACIUM**

(From the clammy pileus, Gr *phlegma*, shiny moisture)

Veil partial, arachnoid, dry *Pileus* equally fleshy, with a con-

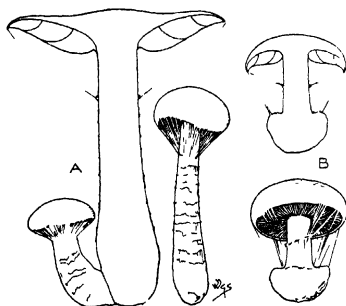


Fig 53—A *Cortinarius* (*Phlegmacium*) *triumphans* Fr
B C (*Phlegmacium*) *fulmineus* Fr
Entire and in section One third natural size

tinuous viscid pellicle *Stem* firm, dry, usually solid, more or less
zoned with the cortina (Fig 53)

- a Chiduchæ* Partial veil depending in the form of a ring from the apex of the nearly equal or clavate stem
- Gills* pallid then clay-colour 974—980
Gills violaceous or purplish then cinnamon 981—985
Gills yellow, cinnamon, ferruginous, not at first whitish or violaceous 986, 987
Gills olivaceous 988—990
- b Scauræ* *Stem* fleshy-fibrous, marginato-bulbous, rounded bulbous in 988 and 1007 *Cortina* commonly inferior, arising from the margin of the bulb *Gills* more or less sinuate
- Gills* whitish, then clay-colour or pale cinnamon 991—994
Gills violaceous, dark blue, purplish, then pale cinnamon 995—998
Gills ferruginous, tawny or yellow 999—1005
Gills olivaceous 1006—1009
- c Elasticæ* *Veil* simple, thin, fugacious, median or inferior *Pileus* usually somewhat thin, often hygrophanous *Stem* commonly thin, not usually bulbous, generally attenuate upwards, rigid-elastic, externally subcartilaginous, lustrous, usually becoming hollow
- **Gills* whitish, then clay-colour or dull cinnamon 1010—1014
Gills violaceous, purplish or flesh-coloured 1015—1017
Gills usually ochre, tawny or ferruginous 1018—1021

a Chiduchæ

- 974 **C triumphans** Fr (from the appearance of the stem, like an entwined triumphal column) *a b c*
P convexo-plane, obtuse, yellow, marg fringed with Co *St* striate, yellow, with transverse evanescent bands of sienna rings and an imperfect Z *G* emarginate, crowded *Flesh* white or sulphur
 Grassy ground, woods, under birch, rare Sept—Oct $5\frac{1}{2} \times 5\frac{1}{2} \times \frac{2}{3}$ in
- 975 **C claricolor** Fr (from the clear colour, *clarus*, clear) *a b c*
P convexo-plane or depressed, often broken into sc, marg fringed with Co *St* white-scaly *G* emarginate or adnate, sometimes almost free, crowded
 Mixed woods, under birch, amongs. heather Aug—Nov $4\frac{1}{2} \times 4\frac{1}{2} \times \frac{3}{4}$ in
- 976 **C turmalis** Fr (from growing in troops, *turma*) *a b c*
P convexo-plane, yellow tan, marg fringed with Co *St* evanescent, white or faintly ochreous-woolly, zoned *G* variously attached, crowded, serrate
 Densely caespitose Mixed woods, chiefly beech, larch Sept—Oct $3\frac{1}{2} \times 4\frac{1}{2} \times \frac{1}{2}$ in

- 977 C crassus** Fr (from the thick stem, *crassus*, thick) *a b*
P expanded, plane or slightly depressed, subfibrillose, dull yellow or tan-brown *St* fibrillose, mealy above, whitish, with an imperfect *Z* *G* rounded, crowded
 Moist woods Aug–Oct $6 \times 4\frac{3}{8} \times 1\frac{1}{8}$ in
- 978 C balteatus** Fr (from the band or zone round the stem from the veil, *balteatus*, belted) *a b*
P convexo-expanded, gibbous, innato-floccose, umber, marg lilac *St* tomentose, palest lilac *G* rounded or variously attached, crowded
 Chiefly pine woods, under birch, dry places Sept–Oct $4\frac{1}{8} \times 2\frac{1}{8} \times \frac{7}{8}$ in
- 979 C sebaceus** Fr (from its colour and clamminess, tallow-like, *sebum*, tallow) *a*
P campanulato-convex, then repand, smooth, marg fringed with Co *St* subfibrillose, paler than *P* with an imperfect *Z* *G* emarginate, veined, not crowded
 Taste mild Woods, mixed, pine Sept–Nov $4\frac{3}{8} \times 5\frac{1}{2} \times \frac{3}{4}$ in
- 980 C lustratus** Fr (from the absence of colour, *lustratus*, purified, whitish) *a*
P convexo-expanded, smooth, marg fringed with Co *St* zoned *G* crowded
 Sunny places, amongst heath, grass Autumn $2\frac{1}{2} \times 1\frac{3}{4} \times \frac{1}{2}$ in
- 981 C varius** Fr (from its changeable characters) *a b c*
P convexo-expanded, obtuse, yellow-tawny or umber, marg fringed with Co *St* adpressedly flocculose, whitish, zoned *G* emarginate, subcrowded
 Taste somewhat nauseous Woods, fir, uncommon Sept–Nov $4\frac{1}{8} \times 3\frac{1}{4} \times \frac{1}{2}$ in Must not be confounded with 1015
- 982 C cyanopus** Fr (from the dark to pale purple stem, Gr *kyanos*, dark blue, *pous*, a foot) *a b c*
P convexo-plane, obtuse, date-brown-livid, then tan *St* naked, colour as *P* *G* adnate or emarginate, edge unequal *Flesh* sometimes changing to violet
 Woods, under oak, frequent Aug–Nov $4 \times 3\frac{3}{4} \times \frac{1}{4}$ in
- 983 C variegatus** Fr (from its variable colour) *a b*
P convexo-expanded, reddish-bay, marg violet, fringed with Co *St* solid, grey-bluish and whitish, transversely 3–5 zoned with Co *G* emarginato-decurrent, crowded
 Woods, pine Sept–Nov $5\frac{1}{2} \times 6\frac{1}{8} \times 1\frac{1}{2}$ in Var *nemorosus* Fr smaller
P rivulose, yellow bay *St* hollow Woods, beech
- 984 C largus** Fr (from its large size) *a b*
P convexo-plane, obtuse, tawny brick-red, sometimes deep bright purple when young, marg pale purple, fringed with Co *St* fibrillose, pale purple above, tan below, sometimes becoming red when bruised *G* emarginate or adnate, crowded
 Somewhat caespitose Woods, pine Sept–Oct $2\frac{1}{2} \times 4\frac{3}{8} \times \frac{1}{8}$ in

985 C Riederi Fr (after M Rieder of St Petersburg) *a b*

P campanulato-expanded, obtuse, ochreous, marg fringed with
Co *St* lilac-silky and tan-fibrillose *G* adnate or rounded,
 eroded, somewhat thick

Woods, pine Sept-Oct $2\frac{1}{2} \times 4\frac{1}{2} \times \frac{3}{8}$ in

986 C saginus Fr (from its great size, *sagina*, corpulence) *a c*

P convexo-expanded, obtuse, repand, yellow, mid darker,
 marg paler *Co* fugacious *St* somewhat bulbous, fibrillose,
 light yellowish *G* decurrent, eroded

Gregarious, somewhat caespitose Woods, larch Oct $5\frac{1}{2} \times 4 \times 1\frac{1}{2}$ in

987 C russus Fr (*russus*, red) *a b*

P campanulato-expanded, obtuse, marg fibrillose *St* not bulbous,
 whitish *G* adnate or subadnate, crowded, veined

Taste nauseous bitter Woods, moist places, uncommon Sept-Oct
 $4\frac{1}{2} \times 3 \times \frac{1}{2}$ in

988 C infractus Fr (from the broken and bent margin of the pileus, *infractus*, broken, incurved) *a c*

P expanded, slightly depressed, virgate, olive then yellowish,
 marg at first broken, then revolute and wavy *St* adpressedly
 fibrillose, dull olive becoming pale *Co* fugacious *G* adnate,
 broad, crowded

Taste nauseous bitter Woods, beech Oct $3 \times 1\frac{1}{2} \times \frac{1}{8}$ in Becoming
 olive blackish in drying

989 C anfractus Fr (from the margin of the pileus, *anfractus*, recurved) *a b*

P convexo-expanded, then repand, dark olivaceous, marg
 thinner than 988, broken, usually sinuous and very irregular
St fibrillose, violaceous above, dull olivaceous below *Co*
 superior *G* emarginate, distant *Flesh* reddish when cut

Woods, rare Sept-Oct $3\frac{1}{2} \times 3 \times \frac{1}{2}$ in

990 C Berkeleyi Cooke (after the Rev M J Berkeley) *a*

P convexo-expanded, obtuse or subumbonate, silky, bright
 ochreous-brown, white-patched with *Co*, marg plicato-sulcate
 tan-brown, lilac or violaceous, appendiculate with *Co* *St*
 fibrillose, whitish *G* emarginate, arcuate

Woods Autumn $7\frac{1}{2} \times 4\frac{1}{2} \times 1\frac{1}{2}$ in In infancy the whole plant is covered
 with a whitish veil

*b Scariosa***991 C multiformis** Fr (from its varied shapes) *a b c*

P convexo-plane, slightly depressed, light yellow, clay or tawny,
 marg fringed with *Co* *St* white or pale yellow *G* emarginate
 or free, serrulate, crowded, thin

Taste and odour usually mild, odour sometimes of *Stephanotis* Woods,
 beech, uncommon Aug-Nov $3\frac{1}{2} \times 2\frac{1}{2} \times \frac{1}{2}$ in Var *flavescens* Cooke
P tawny yellow *G* yellow *Flesh* tinged yellow

992. *C. napus* Fr (from the turnip-shaped base of the stem, *napus*, a turnip) *a*

P convexo-plane, obtuse, fuliginous or date-brown-tawny, marg fringed with Co *St* white, becoming yellowish below *G* emarginate or broadly adnate, subdistant, crisped

Woods, pine Oct $2\frac{3}{8} \times 1\frac{1}{2} \times \frac{3}{8}$ in

- 993 *C. allutus* Fr (from its viscosity, *allutus*, bathed) *a l*

P convexo-plane, reddish-russet or orange-yellow *St* viscid, white above, reddish-striate below *G* adnate, subcrowded, thin, crenulate

Woods, pine Oct $1\frac{1}{2} \times 1\frac{3}{8} \times \frac{3}{16}$ in

- 994 *C. talus* Fr (from the base of the stem, like swollen ankles, *talus*, an ankle bone) *a b*

C convexo-plane, dull ochre, marg faintly olivaceous *St* smooth, tan or dull ochreous tan *G* adnate emarginate *Flesh* pallid whitish

Woods Sept-Nov $3\frac{3}{8} \times 2\frac{1}{2} \times \frac{1}{2}$ in

- 995 *C. glaucopus* Fr (from the pale blue stem *Gr glaukos*, pale blue, *pous*, a foot) *a b*

P convexo-expanded, unequal, dull ochre, commonly floccososcally with a raised dark zone at marg *St* fibrilloso-woolly and steel-blue above, base ochreous *G* rounded emarginate, crowded

In troops Woods, pine, beech, frequent Aug-Oct $3\frac{1}{4} \times 2\frac{1}{2} \times \frac{1}{4}$ in
Becomes bright violet when cut or bruised

- 996 *C. calochrous* Fr (from its beautiful colours (*on kalos*, beautiful, *chros*, colour) *a b c*

P convexo-expanded, guttate, tawny, marg yellow *St* fibrillose, tan, yellow at base *G* emarginate, crowded serrate

Taste acrid, odour fetid Woods, oak, beech, pastures, frequent Sept-Nov $2\frac{7}{8} \times 2\frac{1}{2} \times \frac{3}{4}$ in

- 997 *C. cærulescens* Fr (from the azure-clouded pileus *cærulus*, azure) *a b c*

P convexo-plane, dull yellow, clouded pale purple, sometimes dull or bright purple or violet *St* at first fibrillose, faint or deep purple, bright or dull *G* adnate, thin, crowded *Flesh* pale violaceous

Taste inspid, odour almost obsolete Mixed woods, mossy places, frequent Aug-Nov $2\frac{3}{8} \times 2\frac{3}{8} \times \frac{3}{8}$ in Not changing colour when broken

998. *C. purpurascens* Fr (from the gills becoming purple when bruised) *a b c*

P convexo-plane, then repand, brown clouded with purple at the sometimes zoned marg *St* solid, fibrillose, clouded pale brown and blue *G* emarginate, crowded

Single or caespitose Mixed woods, beech, pine, common Sept-Nov $4\frac{1}{2} \times 3 \times 1\frac{1}{2}$ in The purple hues have sometimes a tendency to crimson

Sometimes the whole plant is purple and not unlike 139 Var *subpurpurascens* Fr, thinner than type, slightly virgate P tawny smoke colour St hollow, pale bluish or whitish

- 999 **C dibaphus** Fr (from the two colours, Gr *dibaphos*, twice dipped or dyed) *a b c*

P convexo-plane, or slightly depressed, yellow or sienna with purple or lilac marg St deep yellow to straw G sinuato-
adnate, somewhat crowded, straw to purple-ferruginous Flesh
yellow

Taste and odour none Woods, beech, oak Sept-Oct $4 \times 3\frac{3}{8} \times \frac{7}{8}$ in
Wholly deep claret when dry Var *xanthophyllus* Cooke, the young
state P for a long time yellow

- 1000 **C turbinatus** Fr (from the shape of the base of the stem, *turbo*, a spinning-top) *a b*

P convexo-depressed, dull yellowish, marg somewhat olive-
brownish St stuffed to hollow, faintly dull yellowish G
attenuato-adnate or decurrent, thin, crowded

Woods, beech, uncommon Sept $5\frac{3}{8} \times 2\frac{7}{8} \times \frac{5}{8}$ in

- 1001 **C corrosus** Fr (*corrosus*, gnawed to pieces, in reference to the late condition of the pileus) *a*

P convexo-depressed, subfloccose, ferruginous to pale tan St
almost hollow, tan, white above G emarginate, narrow

Woods, pine Sept $3 \times 1\frac{1}{2} \times \frac{3}{4}$ in

- 1002 **C fulgens** Fr (from its shining colour, *fulgeo*, to shine) *a b c*

P convexo-plane, silky-fibrillose, brilliant yellow St fibril-
loso-woolly, colour as P G emarginate Flesh yellow

Woods, pine, rare Sept $3\frac{3}{8} \times 2\frac{1}{8} \times \frac{7}{8}$ in

- 1003 **C fulmineus** Fr (from the shining pileus, *fulmen*, lightning) *a*

P convexo-expanded, agglutinato-scaly, hard, bright yellow to
tawny St yellow G rounded

Shady woods, oak Oct $2\frac{1}{2} \times 1\frac{7}{8} \times \frac{1}{2}$ in

- 1004 **C orichalceus** Fr (from the colour, like yellow copper ore, *orichalchum*) *a b*

P convexo-depressed, sienna-crimson, mid spotted scaly marg
dull yellow or faintly olive St fibrillose, sulphur to dull
yellow G rounded-adnate

Under trees, woods, pine Sept-Oct $3 \times 3\frac{3}{8} \times \frac{5}{8}$ in

- 1005 **C testaceus** Cooke (from the colour, *testaceus*, brick-red) *a b*

P convex, flat, umbonate, vinous brick-red St fibroso-striate
below, white above, rufous below G adnato-emarginate

Woods, amongst leaves Oct-Nov $3\frac{3}{4} \times 3\frac{5}{8} \times \frac{1}{2}$ in

- 1006 **C prasinus** Fr (from the colour, Gr *prason*, a leek) *a c*

P convexo plane, obtuse, spotted, verdigris or tawny-fuliginous
St greenish-pallid G emarginate, subdistant, somewhat
crispd

Commonly sporadic Edible Taste mild Woods, beech Sept-Oct
 $3\frac{1}{2} \times 3\frac{1}{4} \times \frac{3}{8}$ in

1007 C atrovirens Kalch (from the pileus, often dark green, *atrovirens*) *a b*

P convex, slightly depressed, green, sometimes olive-umber or bluish-green *St* pale-green, ferruginous below *G* adnate
Flesh tinged with green *Myc* sulphur or tawny

Taste bitter, odour none Woods, pine Oct–Nov $3\frac{3}{4} \times 2\frac{3}{4} \times \frac{3}{4}$ in

1008 C scaurus Fr (from the stem, as if with swollen ankles, *scaurus*) *a b*

P convex, plane, depressed, spotted, tawny-fuliginous to vinous, mid darker *St* fibrilloso-striate, bluish-grey or pale olive, becoming white *G* adnate or adnexo-rounded, crowded

Woods, rare Sept–Nov $3\frac{1}{2} \times 3 \times \frac{3}{8}$ in

1009 C herpeticus Fr (from the lengthening stem, Gr *herpetikos*, creeping) *a b*

P convex, obtuse, spotted, olive or yellow-olive, then tan *St* stuffed, fibrillose, greyish above, yellowish or tan below *G* adnate

Woods Sept $2\frac{1}{2} \times 2\frac{1}{2} \times \frac{3}{8}$ in

c Elasticæ

1010 C eumatis Fr (from the colour of the pileus, *eumatis*, sea-coloured, blue) *a b c*

P convex, slate-grey or purple-grey, marg fringed with Co *St* subbulbous, sometimes slightly rooting, white *G* attenuato-adnexed or adnate, serrate

Sometimes subcaespitose Woods Sept–Oct $3\frac{1}{2} \times 4\frac{1}{2} \times \frac{1}{2}$ in

1011 C serarius Fr (from the whey-like moisture of the pileus, like serum) *a*

P convexo-plane, gibbous, ochreous, buff-whitish or white *St* fibrillose, subrooting, ochre-whitish or white *G* broadly adnate, crowded, at first pale olive, then sienna-olive with ochre *Flesh* pale yellowish

Woods Autumn $3\frac{1}{2} \times 3\frac{1}{2} \times \frac{3}{8}$ in

1012 C emollitus Fr (from its soft substance, *emollitus*, soft) *a b*

P convex, obtuse, subrepand, fibrilloso-irgate, tawny ochreous-yellow *St* fibrillose, white, then tinged yellow *G* emarginate, broad, subdistant

Often caespitose Taste acid Woods, beech, grassy places Sept–Oct $2\frac{1}{2} \times 1\frac{1}{2} \times \frac{1}{2}$ in

1013 C crystallinus Fr (from the shining white pileus, Gr *krustallinos*, crystalline) *a b*

P expanded, obtuse, at first watery-pallid, or ivory *St* fibrillose, whitish-straw, zoned *G* emarginate

Taste acid Woods, beech, fir, oak Oct $1\frac{3}{4} \times 1\frac{3}{8} \times \frac{1}{4}$ in

- 1014 C decoloratus** Fr (from the change of colour in the bulbous pileus, drying lighter in patches) *a b c*
P campanulato-expanded, obtuse, clay-colour or tan, corrugate when old *St* whitish *G* emarginate, adnate, or decurrent
 Taste acrid Woods, birch, pine, beech Aug-Oct Protein, varying large and small Large $3\frac{1}{2} \times 3\frac{1}{2} \times \frac{3}{4}$ in Small $\frac{3}{4} - 1\frac{1}{8} \times 1\frac{1}{4} \times \frac{1}{4}$ in
- 1015 C decolorans** Fr (from the gills, soon changing colour from purple to cinnamon, but unchanging when bruised) *a b*
P convexo-flat, yellow, marg fringed with Co *St* shining-white, zoned *G* emarginate or sinuato-adnexed, crowded, thin *Flesh* white
 Woods, fir Sept-Oct $2\frac{3}{8} \times 3\frac{1}{2} \times \frac{3}{8}$ in Must not be confounded with 981
- 1016 C porphyropus** Fr (from the purple stem, Gr *porphureos*, purple, *pons*, a foot) *a b c*
P convexo-plane, innately streaked, livid brownish-clay *St* purple, becoming whitish, but again lilac or purple if bruised *G* adnato-emarginate or rounded, at length cinnamon, but again purple if bruised *Flesh* deep purple
 Taste insipid, odour in drying sometimes of mice Woods Sept-Oct $2\frac{1}{2} \times 2\frac{1}{8} \times \frac{1}{4}$ in
- 1017 C croceocæruleus** Fr (from the saffron-gills and blue-purple pileus, *croceus*, saffron, *cæruleus*, azure) *a b*
P gibbous, plane or depressed *St* naked, whitish or pale purple, zoned *G* emarginate *Flesh* pallid
 Odour disagreeable Woods, beech Oct $1\frac{1}{2} \times 1\frac{3}{8} \times \frac{3}{16}$ in
- 1018 C coruscans** Fr (from the glittering pileus, *coruscans*, glittering) *a*
P obtuse, flat, ochreous, often spotted tawny *St* solid fibrillose-striate, white *G* plano-decurrent
 Taste and odour obsolete Copses, beech $5\frac{1}{2} \times 4\frac{1}{2} \times \frac{1}{2}$ in
- 1019 C papulosus** Fr (from the granular patches on the pileus, *papulosus*, full of pimples) *a*
P convexo-plane, honey-tan, mid glabrous, ferruginous-patchy when dry *St* solid, fibrillose, white *G* adnato-decurrent
 Woods, pine Oct-Nov $2\frac{1}{8} \times 3\frac{3}{8} \times \frac{1}{2}$ in
- 1020 C vesperinus** Fr (from the dull colours, as of evening, *vesper*) *a b*
P convexo-plane, pale umber, marg fringed with Co *St* solid, fibrillose, white *G* emarginate, broad, crowded, umber, shaded olive
 Woods, oak Oct $2\frac{3}{8} \times 4 \times \frac{1}{4}$ in
- 1021 C olivascens** Fr (from the olive-greenish pileus) *a c*
P convexo-plane, glabrous, marg striate, fringed with Co *St* tan-white *G* emarginate or adnexed, olive-brown *Flesh* yellowish near surface of *P* and *St*
 Taste acrid Damp places amongst pines Sept $2\frac{1}{2} \times 3\frac{1}{4} \times \frac{1}{8}$ in

SUBGENUS 2 MYXACIUM

(From the glutinous pileus and stem, *Gr muxa*, mucus)

Veil universal, glutinous *Pileus* fleshy, glutinous, somewhat thin
Stem scarcely bulbous, viscid, more or less zoned *Gills* adnate or
 decurrent (Fig 54)

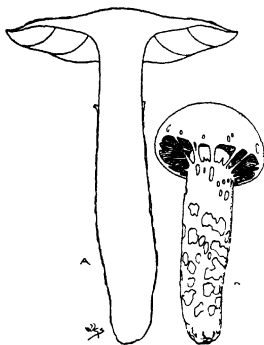


Fig 54—*Cortinarius* (*Myxadium*) *collinitus* Fr
 A, section of mature example B young state
 One third natural size

- a Collinitæ* *Stem* floccoso-peronate, the flocci at first covered
 with gluten 1022—1027
b Delibutæ *Veil* entirely viscid *Stem* not floccoso-peronate,
 viscid, with a varnished appearance when dry 1028—1034
Gills whitish, then clay-colour 1028
Gills at first violaceous, dark blue or reddish 1029—1031
Gills at first ochraceous or cinnamon 1032—1034

a Collinitæ

1022 **C arvinaceus** Fr (from the viscid greasy pileus and stem,
arvina, grease) *a b*

P flat, slightly depressed, repand, orange-tawny, marg striate
St solid, equal, silky-viscid, white *Co* fugitive, forming an
 imperfect Z *G* adnato-decurrent, subdistant, crenulate, straw
 or ochreous-tan to bright ochreous

Woods, beech Oct $3\frac{1}{8} \times 5\frac{1}{2} \times \frac{1}{2}$ in

1023 **C collinitus** Fr (from the pileus and stem, besmeared with
 gluten, *collino*, to besmear) *a b c*

P convexo-flat, obtuse, orange-tawny or umber, white-patched
 with *Co*, marg not striate *St* solid, equal or attenuate

upwards, floccoso-glutinous and concentric-scaly with the fugitive viscid-floccose Co, tan-ochreous G adnate, sub-crowded, whitish-bluish-grey to cinnamon

Woods, amongst heather, common July–Nov $4\frac{1}{2} \times 5\frac{1}{2} \times 1$ in Var
mucosus Fr, firmer, stem even, silky Woods, pine

1024 C mucifluus Fr (from the abundant flowing gluten, *mucifluus*, flowing with mucus) *a b*

P campanulato-expanded, obtuse, reflexed, livid-clay or shaded olivaceous, white-patched with Co, marg striate *St* attenuate downwards, white, with steel-blue gluten forming zones G adnate, clay-colour then watery-cinnamon

On the ground Aug–Oct $3\frac{1}{2} \times 5 \times \frac{1}{2}$ in

1025 C elatior Fr (from its tall growth, *elatus*, tall) *a b c*

P convex-flat, subreflexed, plicato-wrinkled, light yellow, dull ochreous, deep orange, whitish, brown, grey or blackish, whitish, violaceous or olivaceous at marg *St* attenuate downwards, longitudinally fibrous, viscid-scaly, whitish, greyish or pale-purplish with a fugitive viscid Co G adnate, veined, brown-cinnamon

Taste mild Mixed woods, pine, beech, common Aug–Nov $4\frac{1}{2} \times 6\frac{1}{2} \times 1\frac{1}{2}$ in

1026 C grallipes Fr (from the long, stilt-like stem, *grallæ*, stilts, *pes*, a foot) *a b*

P flat, umbonate, repand, hygrophanous, ferruginous to ochreous-tan *St* stuffed to hollow, equal, fibroso-striate, yellowish-tawny to ochreous, with a fugacious, arachnoid Co G adnate with a decurrent tooth, crowded, clay to cinnamon

Crispitate Mixed woods, grassy places near trees, poplar, oak Oct
 $3\frac{1}{2} \times 4\frac{1}{2} \times \frac{1}{8}$ in

1027 C livido-ochraceus Berk (from the livid ochre colour of the pileus) *a b*

P convex-flat, white, with faint ochre, pale dull lavender, or faint brown mid or wholly brownish, lavender-purplish when young *St* violet, steel-blue or white above, brownish below, with a fugitive Co which forms an imperfect ochre Z G rounded-adnexed, subdistant, ochre to cinnamon, edge pale

Odour none Woods, uncommon Sept–Oct $2\frac{1}{2} \times 2\frac{1}{2} \times \frac{1}{4}$ in

b Delibuta

1028 C nitidus Fr (from its shining, beautiful appearance, *nitidus*, bright) *a*

P convex, plane, obtuse then depressed, honey-colour, sometimes white *St* clavate, pallid-white or yellowish-tan G decurrent, crowded, serrate

Subcæspitose Woods, beech Autumn $3\frac{1}{2} \times 3 \times \frac{1}{2}$ in

- 1029 C salor** Fr (from its greyish colour, like the sea, *salum*) *a b*
P convex, obtuse or broadly umbonate, mid grey, marg
 violaceous or steel-grey *St* attenuate upwards, white, when
 young covered with bluish gluten *Co* forming an imperfect
Z *G* emarginate or adnate, distant, grey or cinnamon

Woods Oct $3 \times 3\frac{1}{4} \times \frac{1}{8}$ in

- 1030 C delibutus** Fr (from the besmeared gluten, *delibuo*, to
 besmear) *a b*

P convexo-flat or subdepressed, light yellow *St* stuffed or
 hollow, attenuate upwards white, sometimes pale steel-blue
 above *Co* forming an imperfect *Z* *G* adnate, slightly
 emarginate or subdecurrent, subdistant, serrulate

Taste watery to slightly pungent On the ground, damp grassy places
 Sept-Oct $2\frac{1}{2} \times 3\frac{1}{2} \times \frac{5}{16}$ in

- 1031 C illibatus** Fr (from the gills, the margin entire, not serrulate,
 as in the last, *illibatus*, entire) *a*

P convexo-plane, obtuse or subumbonate, yellow, mid darker
St stuffed or hollow, slightly attenuate above, white, often red-
 dotted upwards *G* adnato-decurrent, crowded

Woods, pine Autumn $1\frac{1}{2} \times 2\frac{1}{2} \times \frac{1}{8}$ in Smaller and more slender than
 1030, with no trace of violet colour

- 1032 C stillatitius** Fr (from the dripping gluten, *stillo*, to drip) *a b*

P convexo-plane, subumbonate, hygrophanous, mid tan-grey,
 marg steel-grey and appendiculate with gluten *St* hollow,
 attenuate upwards, steel-grey with gluten *Co* forming an
 imperfect *Z* *G* emarginate, subdistant

Odour none Mossy places, pastures, amongst dead leaves, uncommon
 Oct $2\frac{1}{2} \times 3\frac{1}{2} \times \frac{1}{8}$ in

- 1033 C vibratilis** Fr (from a fancied tremulous habit, *vibratilis*,
 quivering) *a b*

P plano-gibbous, hygrophanous, shining golden-yellow *St*
 stuffed, attenuate upwards, whitish *Co* forming a glutinous
 fugitive *Z* *G* emarginato-decurrent, thin, crowded

Taste and odour disagreeable Woods Sept $1\frac{1}{2} \times 1\frac{1}{2} \times \frac{1}{4}$ in

- 1034 C pluvius** (from its viscosity in rainy weather, *pluo*, to rain) *a*

P convexo-gibbous, hygrophanous, pale yellow-tawny, marg
 striate *St* stuffed to hollow, nearly equal, naked, absolutely
 viscid, white *G* adnexed, crowded

Taste watery, then acrid pungent Woods, pine Sept-Nov $1\frac{1}{2} \times 2 \times \frac{1}{8}$ in

SUBGENUS 3 INOLOMA

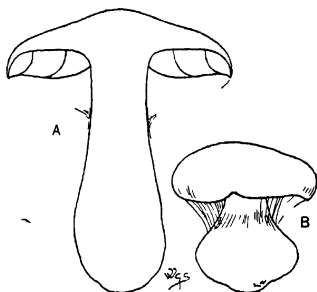
(From the fibrillose or fringed veil, Gr *is, mos*, a fibre,
loma, a fringe)

Veil single, fibrillose *Pileus* equally fleshy, dry, subcompact, at
 first silky with innate scales or fibrils, becoming smooth, flesh

continuous, not hygrophanous *Stem* fleshy, somewhat bulbous (Fig 55)

Handsome and easily distinguished

Species 1035—1057



• Fig 55—*Cortinarius (Inoloma) violaceus* Fr
One half natural size
A section of mature example B young state

Gills at first white or pallid 1035—1038

Gills, Veil and Stem violaceous 1039—1045

Gills or *Veil* cinnamon, red or ochreous 1046—1052

Gills or *Veil* dark, fuscous, olivaceous 1053—1057

1035 C argutus Fr (from the graceful habit, *argutus*, graceful) *a b*
P expanded, gibbous then subdepressed, ochreous *St* solid, ventricose, fibroso-squamose, yellowish-white *G* adnate, rounded, subdistant, white clay-colour

Woods, amongst leaves, oak Oct $4\frac{1}{2} \times 3\frac{1}{2} \times \frac{1}{2}$ in

1036 C argentatus Fr (from the silvery white pileus and stem, *argentum*, silver) *a b c*

P convexo-plane, broadly gibbous, marg pale lilac then dun
St solid, slightly attenuate upwards, yellowish at base *G* emarginate, crowded, becoming watery-cinnamon or sienna

Taste insipid, odour weak to strong, sweet, not fetid Woods Sept–Oct $5 \times 3\frac{3}{4} \times \frac{3}{4}$ in Var *pinetorum* Cooke, smaller and more graceful, odour faint Woods, pine

1037 C opimus Fr (from its obese appearance, *opimus*, fruitful) *a*
P convexo-plane, hard, dry, wavy-deformed, rimoso-rivulose, white, covered with short ochreous down *St* solid, hard, subturbinata, white-fibrillose with Co, base rooting *G* emarginate, subcrowded, whitish then tan

Solitary Woods Autumn $4\frac{1}{2} \times 1\frac{1}{2} \times 1\frac{1}{2}$ in

- 1038 C turgidus** Fr (from the stem, frequently swollen or bulbous, *turgidus*, swollen) *a*

P convexo-obtuse, flat, clay-white, marg white-silky *St* solid, bulbous, rimoso-striate, surface often undulate, colour as *P*, with an imperfect *Z* *G* emarginate, narrow, crowded, whitish to tan

Odour strong Woods, beech Autumn $3 \times 2\frac{1}{2} \times \frac{3}{4}$ in

- 1039 C violaceus** Fr (from the violet colour) *a b c*

P convex, obtuse, flat, villous-scaly, dark purple, smeared copper-brown *St* solid, bulbous, zoned *G* adnate, distant, dark violaceous, clouded cinnamon *Flesh* dark blue or dark purple

Edible Taste like that of 792 Woods and open ground Aug-Nov $4 \times 4 \times \frac{1}{2}$ in Often confounded with 138 and 139

- 1040 C cyanites** Fr (from the dark blue colour (cf *luanites*, dark blue) *a b*

P convex, flat, not villous-scaly, at first dark blue, then pale turquoise marg fringed with Co *St* solid, bulbous, colour as *P*, zoned *G* rounded, crowded, turquoise to grey-bluish *Flesh* colour as *P*, becoming reddish, with a red juice

Woods, mixed Oct $5 \times 6 \times \frac{1}{2}$ in Var *major* Fr *P* and *St* compact, *G* subdistant, cinereous, dark blue, flesh turning red more slowly than type When bruised the blue colour changes to salmon

- 1041 C muricinus** Fr (from the purple colour, as of the mollusc *Murex*) *a*

P convex, obtuse, becoming smooth, violaceous to reddish-liver marg whitish, fibrillose *St* bulbous, villous, zoned not juicy *G* emarginate, subcrowded, colour as *St*

Odour strong Woods, larch fir Oct $3\frac{3}{8} \times 2\frac{1}{2} \times \frac{1}{8}$ in

- 1042 C alboviolaceus** Fr (from the violaceous-white pileus, *albus*, white, *violaceus*, violet) *a b*

P convexo-expanded, broadly umbonate or gibbous, dry *St* solid, clavato-bulbous, white villous, zoned *G* adnate, subdistant, cinereous-violaceous to cinereous-cinnamon *Flesh* palest azure-blue

Taste insipid, odour none Woods, beech, shady places Sept-Oct $3\frac{1}{2} \times 4 \times \frac{1}{2}$ in

- 1043 C malachius** Fr (from the pale purple colour, as of the mallow) *a*

P convex, obtuse, white fibrillose becoming smooth, lilac, brownish or reddish when dry *St* bulbous, bluish-lilac, then whitish, zoned *G* emarginate, crowded, purple to watery ferruginous *Flesh* whitish

Odour none Woods, fir Sept $2\frac{5}{8} \times 2\frac{1}{2} \times \frac{1}{8}$ in Must not be confounded with 1133

- 1044 **C camphoratus** Fr (from its powerful odour, *camphoratus*, strong scented) *a c*

P convex, obtuse then flat, lilac, whitish, yellowish or tan-livid, marg fringed with Co *St* clavato-bulbous, pale violet or lilac, zoned *G* emarginate or adnato-decurrent, grey-blue to purplish *Flesh* pale bluish

Odour strong, fetid, penetrating, like fenugreek or curry powder Woods, fir Autumn $4 \times 4\frac{1}{2} \times \frac{5}{8}$ in

- 1045 **C hireinus** Fr (from its strong odour, *hircus*, a he-goat) *a*

P convex, obtuse, violet, mid becoming ferruginous, marg fringed with Co *St* bulbous, becoming pallid, yellowish at base, zoned *G* emarginate, subdistant, azure blue or violet to cinnamon *Flesh* dingy, becoming yellowish

Fetid Woods, fir Autumn $2\frac{1}{2} \times 2\frac{3}{4} \times \frac{1}{2}$ in

- 1046 **C traganus** Fr (from its strong odour, *tragus*, a he-goat) *a b c*

P convex, obtuse, flat, lilac-purplish, becoming yellowish *St* bulbous, spongy solid, violaceous to whitish, zoned, subannulate *G* emarginate, broad, distant, thick, saffron-ochreous to cinnamon *Flesh* yellowish

Woods, pine, amongst ling Taste strong, pleasant to unpleasant, odour fetid Aug-Sept $4\frac{1}{2} \times 3\frac{1}{2} \times \frac{5}{8}$ in Var *finitimus* Lr, odour pleasant, peculiar, like fermenting gum

- 1047 **C suillus** Fr (from its odour of the pig, *suillus*, relating to swine) *a*

P convex, obtuse, pallid brick-red or ochreous-cinnamon, marg silky or floccoso-squamulose *St* clavate or equal, spongy, pallid, apex shaded light violet, darker when bruised, zoned *G* adnate, subdistant, fragile, connected by veins, cinnamon

Woods, fir Autumn $2\frac{3}{4} \times 2\frac{3}{4} \times \frac{3}{4}$ in

- 1048 **C tophaceus** Fr (from the colour, *tophus*, tufa) *a b*

P hemispherico-convex, very obtuse, glittering golden-tawny, with small sienna sq *St* solid, subbulbous villososquamulose, tawny, zoned *G* emarginate, distant, tawny, cinnamon

Subcapitose or solitary Odour sometimes strong Woods, beech Aug $2\frac{3}{8} \times 4 \times \frac{1}{2}$ in Var *radimitus* Fr *St* not bulbous or villososcaly

- 1049 **C callisteus** Fr (Gr *kallistos*, most beautiful) *a b c*

P convexo-expanded, obtuse, yellow-tawny to yellow-ferruginous *St* clavato-bulbous, solid, fibrillose, yellow, rhubarb-colour at base, imperfectly zoned *G* adnate, subdistant, yellow-tawny

Odour pungent or none Woods, oak, pine, rare July-Oct $2\frac{1}{8} \times 4\frac{1}{2} \times \frac{1}{2}$ in Resembles 580 in appearance

1050 C Bulliardii Fr (after Pierre Bulliard, French mycologist) *a b c*

P convex, flat, crimson bay-brown or umber *St* solid, bulbous, fibrillose, blood-red below, pale above, irregularly zoned
G adnato-subdecurrent, purplish to ferruginous, edge whitish
Flesh pale purplish-rose, flecked pale blue

Odour strong Woods, mixed, beech Sept–Oct $2\frac{1}{2} \times 2 \times \frac{1}{2}$ in Some times approaching 1041, at other times 1084

1051 C vinosus Cooke (from its colour, *vinosus*, like red wine) *a*

P flat, subdepressed, shining *St* solid, marginato-bulbous, pale violet above, reddish below, zoned *G* adnato-subdecurrent, scarcely crowded, ferruginous-cinnamon

Under trees Oct $2\frac{3}{8} \times 2 \times \frac{1}{2}$ in

1052 C bolaris Fr (from its being marked with red, *bolare*, to mark) *a b*

P convexo-plane, obtuse, light yellow-red, covered with sienna-red sc *St* stuffed to hollow, apex white, elsewhere covered with sienna-red sc, often in irregular zones *G* decurrent, adnate or emarginate, crowded, pale to dark cinnamon

Solitary or subcaespitose Woods, beech, uncommon Aug–Nov $2\frac{1}{2} \times 2\frac{1}{2} \times \frac{1}{2}$ in When young *P* and *St* wholly sienna crimson Very dark when dry

1053 C pholideus Fr (from the scaly pileus and stem, (Gr *pholis*, a scale) *a b c*

P convexo-plane, sometimes subumbonate, fawn-colour, covered with smaller umber and sepia sc *St* solid, pale white-purplish above, fawn below, clad with dark umber sc, often in zones, zoned cortinate above *G* adnato-emarginate, violaceous or pale slate to cinnamon

Woods Sept–Oct $3 \times 3\frac{1}{4} \times \frac{1}{2}$ in

1054 C sublanatus Fr (from the somewhat woolly pileus, *lana*, wool) *a b c*

P campanulate, expanded, umbonate, fawn, becoming ferruginous, covered with dark sq *St* solid, clavato-bulbous, apex faint azure-purplish, colour as *P* below, covered with dark sc, sometimes zoned *G* adnate, scarcely crowded, olivaceous-yellowish to cinnamon

Odour of radish Woods, larch, fir, rare Oct $3\frac{3}{4} \times 3\frac{1}{2} \times \frac{1}{2}$ in Intermediate between 1053 and 1084

1055 C phrygianus Fr (from the colour, like gold embroidery, *phrygio*, an embroiderer in gold) *a*

P convex, obtuse, honey-colour, covered with small black sc *St* subbulbous, paler than *P*, black-scaly below *G* rounded-adnate, subcrowded, dull yellow

Odour of radish Shady moist places, under beeches Autumn $2\frac{3}{8} \times 2\frac{1}{2} \times \frac{1}{2}$ in Habit like that of 69

1056 C arenatus Fr (from the granulose pileus, as if sand-covered, *arena*, sand) *a b c*

P convexo-expanded, sometimes umbonate, pale yellowish-fuscescent, mid umber, minutely squamulose *St* usually attenuate upwards, pallid above, fuscous and dark squamulose below *G* adnexo-emarginate, yellowish-cinnamon or salmon

Woods, uncommon Aug–Oct $2\frac{1}{2} \times 2\frac{1}{2} \times \frac{3}{8}$ in

1057 C penicillatus Fr (from the pencilled pileus) *a b*

P campanulato-convex, subumbonate, ferruginous-fuscescent, densely floccoso scaly *St* stuffed, attenuate upwards, clothed with ferruginous-fuscescent, concentric sc *G* rounded-adnate dark brown *Flush* ferruginous-fuscescent

Woods, pine Sept–Oct $1\frac{1}{2} \times 2\frac{1}{2} \times 1\frac{1}{8}$ in

SUBGENUS 4 DERMOCYBE

(From the thinly fleshy pileus, *Gr derma*, skin, *kube*, a head)

Vel single, fibrillose, forming a zone in **1064** *Pileus* thin, equally fleshy, at first silky, with innate villous down becoming smooth when old, dry, not viscid or hygrophanous. *Stem* hollow or stuffed, except **1058**, often equal or attenuate, rigid, elastic or brittle *Gills* changeable in colour *Flush* when moist watery or coloured (Fig 56)

Polymorphous species defined with difficulty owing to the changeable colour of the gills

Species **1058–1085**

Gills at first whitish or pallid

1058–1063

Gills at first violaceous, becoming purple

1064–1070

Stem and fibrillose *Cortina* coloured

Gills bright cinnamon, red or yellow

1071–1080

Olivaceous *Pileus* not torn into scales

Vel dull pallid or **1081–1085**

1058 C ochroleucus Fr (from the yellowish-white pileus, *Gr ochros*, yellowish, *leukos*, white) *a b*

P convex, gibbous *St* solid, ventricose or subbulbous, naked, fibrillose above with Co, colour as *P* *G* adnexo- or adnato-rounded, clay to ochreous or cinnamon

Taste none or bitterish, not unpleasant, odour none or sweetish Woods, mixed, rare Sept–Nov $2\frac{3}{8} \times 1\frac{1}{2} \times \frac{3}{8}$ in

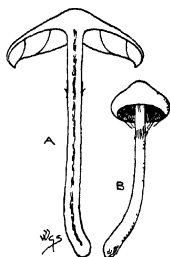


Fig 57—*Cortinarius* (*Dermocystis*) *cinnamonomus* Fr
A section of a mature example
B young state
One half natural size

1059 C decumbens Fr (from the usually decumbent stem) *a*

P convex, gibbous or subumbonate, shining white or yellowish
St stuffed to hollow, subclavate, smooth, white, with a fugacious Co *G* adnexed or adnato-rounded, white to clay and ochreous-cinnamon

Woods and grassy places Autumn $1\frac{3}{8} \times 1\frac{1}{2} \times \frac{1}{8}$ in

1060 C riculatus Fr (from the cortina or veil, *rica*, a veil) *a*

P convexo-plane, gibbous or umbonate, atomate, buff, brown ochre or whitish, marg adpressedly silky-floccose from Co
St hollow, subclavate, smooth, naked, buff-white, with a slight and imperfect pallid Z *G* adnato-rounded, subcrowded, colour as *P*, tan to watery-ferruginous *Flesh* palest yellow

Woods, pine Autumn $2\frac{1}{2} \times 2\frac{1}{2} \times \frac{3}{8}$ in

1061 C tabularis Fr (from the flat pileus, *tabula*, a flat board) *a c*

P convex, broadly gibbous, then plane, clay or fuscous-clay, becoming pale, marg fringed with Co *St* stuffed to hollow, equal or subclavate, white, zoned *G* emarginate, crowded, white to clay

Woods, common Sept-Oct $2\frac{1}{2} \times 2\frac{1}{2} \times \frac{1}{2}$ in

1062 C camurus Fr (from the frequently crooked stem, *camurus*, crooked) *a b c*

P campanulato-convex, obtuse or umbonate, pallid fuscous-hoary becoming pale pallid-yellowish, mid darker marg fringed with Co *St* subhollow, twisted, equal, white *G* adnato-rounded or emarginate, grey-clay to subfuscous-watery-cinnamon

Crespitose Taste not remarkable, odour somewhat rancid Woods, mixed, oak Sept-Oct $2\frac{1}{2} \times 3\frac{1}{2} \times \frac{1}{8}$ in Very fragile

1063 C diabolus Fr (from its doubtful position in *Dermocybe*) *a c*

P hemispherical, obtuse, flat, often unequal and cracked, fuscous, crusted with grey, then smooth and fuscous-yellowish *St* attenuate downwards, white, pale bluish grey above *G* adnato-emarginate, pale bluish-grey to whitish and clay

Odour none Woods, mixed, beech, uncommon Aug-Oct $1\frac{1}{2} \times 2 \times \frac{3}{8}$ in

1064 C caninus Fr (from its commonness, *canis*, a dog) *a b c*

P convexo-plane, tan-sienna to fuscous rufescent or tawny *St* stuffed to hollow, slightly attenuate upwards, whitish, violaceous above, zoned *G* emarginate, subdistant, bluish-grey or purplish to cinnamon

Edible Mixed woods, common Sept-Nov $3\frac{3}{8} \times 3\frac{3}{8} \times \frac{1}{8}$ in

1065 C myrtilinus Fr (from its chestnut-brown colour, *myrteus*, chestnut-brown) *a b*

P convex, gibbous, plane, fuliginous, violet or dusky-brown

St clavato-bulbous, stuffed, whitish or pale violet *Co* obsolete
G adnate, methyst-azure-blue, or pale violet to dusky, not
 purple *Flesh* watery fuscous or whitish

Mixed woods, near trunks, beech Sept–Oct $2\frac{1}{2} \times 2\frac{1}{2} \times \frac{3}{8}$ in Greatly
 resembles 138 and 139, but these have no arachnoid veil, etc

1066 C azureus Fr (from the sky-blue pileus, *azureus*, sky-
 blue) *a b*

P expanded, obtuse, atomate, lilac, then fuscous and pallid
St stuffed, slightly attenuate upwards, smooth, striate, bright
 azure then whitish zoned *G* adnato-emarginate, bright
 bluish-violet *Flesh* white in P, blue in St

Solitary Woods, beech, amongst moss and leaves Autumn $1\frac{3}{4} \times 2\frac{1}{2} \times \frac{5}{16}$ in

1067 C alboeyaneus Fr (from the white pileus and blue gills,
albus, white, *cyanus* sea-blue) *a b*

P convex, plane, obtuse or umbonate, becoming yellowish,
 fringed with Co *St* subclavate, stuffed, whitish, zoned *G*
 emarginate, crowded, bluish-purple to subochreous

Sometimes crepitate Woods, beech Sept $2\frac{1}{8} \times 4\frac{1}{4} \times \frac{1}{16}$

1068 C anomalus Fr (from the colour of all its parts being very
 changeable, *anomalus*, irregular) *a b c*

P convex, expanded, gibbous or subumbonate, fuliginous or
 olive-shaded to rufescent, then yellowish with ochreous-sienna
 mid *St* stuffed to hollow, attenuate upwards, fibrillose or
 scaly, whitish, then palest yellow, zoned *G* adnato-emar-
 ginate, crowded, thin, violaceous to cinnamon

Gregarious Odour none Woods, common Aug–Oct $2\frac{1}{2} \times 2\frac{1}{2} \times \frac{5}{16}$ in

1069 C spilomeus Fr (from the spotted pileus and stem, Gr *spilos*,
 a spot) *a*

P convex, expanded, gibbous, rufescent to clay-colour, spotted
 with reddish-tawny sc *St* hollow, almost equal, white-lilac
 above, pale yellowish below, with many zones of reddish tawny
 sc *G* adnato- or adnexo-emarginate, crowded, thin, bluish-
 grey or violaceous to watery cinnamon

Subcrepitate Woods, uncommon Oct $2 \times 3\frac{3}{4} \times \frac{3}{8}$ in

1070 C lepidopus Cooke (from the fibrillose zones round the stem,
 Gr *lepis*, a scale, *pous*, a foot) *a b*

P convex, flat, slightly depressed, shining umber, mid becoming
 rufescent, marg steel-grey or pale violet *St* clavate, becoming
 hollow, violet or steel-grey above, whitish below, with con-
 centric biscuit-coloured zones *G* adnato-rounded, thin, violet
 to cinnamon, or olive-shaded

Gregarious or fasciculate Woods, amongst heath Sept–Oct
 $2\frac{3}{8} \times 4 \times \frac{1}{4}$ in Perhaps a form of 1064

1071. *C. militinus* Fr (from the colour, like red lead, Gr *miltos*)
a b

P expanded, gibbous or subumbonate, bay-brown-cinnamon to brick-red *St* hollow, attenuate upwards, cinnamon, reddish or crimson, salmon above and below, zoned red with Co
G adnate, crowded, reddish-cinnamon to ferruginous *Flesh* rose in *St*, pale brown in *P*

Odour none Woods, mixed, mossy places Oct $1\frac{1}{2} \times 1\frac{1}{2} \times \frac{3}{16}$ in

1072. *C. cinnabarinus* Fr (from the vermilion colour, *cinnabaris*, vermilion) *a b c*

P convex, obtuse or subumbonate, vivid scarlet-red *St* equal, solid, colour as *P* *G* adnate or subdecurrent, blood-red, and then blood-sienna *Flesh* orange-vermilion in *P*, vermilion in *St*

Taste mushroom like, odour of radish Woods, beech Sept-Oct $2 \times 2\frac{1}{2} \times \frac{1}{4}$ in Wholly dark brown when dry

1073. *C. sanguineus* Fr (from the wholly blood-red colour, *sanguis*, blood) *a b c*

P convex, obtuse, plane *St* equal, stuffed to hollow *G* adnate

Odour of radish Woods, pine, oak Sept-Nov $2\frac{1}{2} \times 2\frac{1}{2} \times \frac{1}{4}$ in Giving out a blood red juice when pressed Sometimes very small

1074. *C. anthracinus* Fr (from the colour of the stem and gills, like burning coal, Gr *anthrax*) *a b c*

P convex, umbonate, dark chestnut *St* hollow, equal, deep blood-red, fuscous below *G* rounded adnate, crowded, red to fiery-red, blood-red when bruised

Woods, amongst moss Aug-Sept $1\frac{1}{4} \times 1\frac{3}{4} \times \frac{1}{8}$ in

1075. *C. cinnamomeus* Fr (from the cinnamon colour) *a b c*

P expanded, obtuse or subumbonate, somewhat pale or bright cinnamon *St* stuffed to hollow, zoned *G* adnate, crowded, blood-red, red-cinnamon, saffron, golden, or light yellow *Flesh* yellowish

Tasteless Woods, mixed, fir, common Aug-Feb Variable in size
Large $2\frac{1}{2} \times 3\frac{1}{2} \times \frac{1}{16}$ in Small $\frac{3}{4} \times 1\frac{1}{8} \times \frac{1}{8}$ in Var *semisanguineus* Fr
G blood red Var *croceus* Fr, smaller than type *G* yellowish or olive
Intermediate forms occur between the type and its varieties

1076. *C. croceoconus* Fr (from the saffron colour of the conical pileus, *croceus*, saffron, *conus*, a cone) *a*

P conical, campanulate, acutely umbonate, tawny cinnamon to yellowish-tawny *St* stuffed to hollow, yellow, zoned *G* adnexo-rounded, crowded, yellow to cinnamon *Flesh* yellow

Woods, pine, mossy places Autumn $1 \times 1\frac{1}{2} \times \frac{1}{16}$ in

1077. **C uliginosus** Berk (from its habitat, *uligo*, marshy ground)
a b c

P campanulato-conical, expanded, strongly and somewhat acutely umbonate, bright brown-red *St* stuffed to hollow, paler than *P*, zoned *G* adnate with a tooth, distant, yellow to olive and cinnamon

Woods, boggy places amongst *Sphagnum* Autumn $1\frac{1}{2} \times 3 \times 1\frac{3}{8}$ in

- 1078 **C orellanus** Fr (derivation obscure) *a b c*

P convex, obtusely umbonate, orange-tawny *St* solid, subequal, striato-fibrillose, tawny, orange-striate *G* adfixed or adnate, subdistant, orange to tawny-cinnamon *Flesh* as *P*, reddening

Taste mushroom like Woods, mixed Aug–Oct $2\frac{1}{2} \times 1\frac{1}{2} \times \frac{3}{4}$

- 1079 **C malleorius** Fr (from the colour, like the fruit of the pomegranate, *malicorum*, the rind of the pomegranate) *a*

P convexo-plane, obtuse, golden-tawny, or golden to fuscous or olive *St* hollow, golden *G* adnexo-rounded, crowded, golden-tawny *Flesh* yellow to greenish-olive

Taste and odour pleasant Woods, pine Autumn $1\frac{1}{2} \times 2\frac{1}{2} \times \frac{1}{2}$ in

- 1080 **C infucatus** Fr (from the bright colour, *fusco*, to paint) *a*

P convex, obtuse, bright yellow to pale sulphur, marg fringed with *Co* *St* solid, clavate, fibrillose, pallid light yellow, zoned *G* adnate, crowded, tawny to cinnamon *Flesh* whitish, light yellow or pale olivaceous

Woods Sept–Oct $2\frac{1}{2} \times 4\frac{1}{2} \times 1\frac{5}{8}$ in

- 1081 **C cotoneus** Fr (from the colour, like the olive, Gr *kotinos*) *a b*

P campanulate, expanded, obtuse, subrepand, velvety, olivaceous *St* solid, attenuate upwards, pallid olivaceous, with one or more fuscous zones *G* adnexo- or adnato-rounded, subcrowded, olivaceous to cinnamon

Odour of radish Woods, mixed, oak Autumn $3\frac{1}{2} \times 5\frac{1}{2} \times \frac{1}{2}$ in

- 1082 **C subnotatus** Fr (from its characters, hardly distinct, *subnotatus*, hardly marked) *a b*

P convex, flat, hoary-floccose, olive or shaded yellowish to dark fuscous *St* stuffed, conical to equal, naked above, yellow fibrillose below, zoned *G* adnate, slightly emarginate, subdistant, yellowish to olivaceous-cinnamon

Odour strong Under trees, beech, fir Nov $3\frac{1}{2} \times 3\frac{1}{2} \times \frac{3}{8}$ in

- 1083 **C raphanoides** Fr (from the strong odour of radish, Gr *raphanos*, radish, *eidos*, resemblance) *a b*

P campanulate, expanded, umbonate, silky-fibrillose, fuscous-olivaceous to tawny *St* stuffed, slightly attenuate upwards, paler than *P*, yellowish above *G* adnate, scarcely crowded, somewhat olivaceous or orange-sienna to cinnamon ferruginous, edge paler *Flesh* pale yellow or sulphur-white

Taste acrid bitter Woods, mixed, beech, fir Sept–Oct $2 \times 2\frac{1}{2} \times 1\frac{3}{8}$ in

1084 C valgus Fr (from the frequently twisted stem, *valgus*, bow-legged) *a*

P convex, gibbous, olivaceous to brick-red *St* somewhat hollow, clavato-bulbous, whitish, apex pale violaceous, zoned
G adfixed or rounded-adnate, yellowish to brick-red and cinnamon

Odour none Woods, pine, amongst moss Oct $3 \times 3\frac{3}{4} \times \frac{5}{8}$ in

1085 C venetus Fr (from the sea-green pileus and stem, *venetus*, sea-coloured) *a b*

P hemispherico-obtuse, convex, umbonate, becoming greenish-yellow *St* stuffed or hollow above, equal or subclavate, colour as *P* *G* adnate, scarcely crowded, olivaceous to orange-cinnamon *Flush* pallid yellowish

Gregarious Woods Aug-Oct $1\frac{1}{2} \times 1\frac{7}{8} \times \frac{5}{16}$ in

SUBGENUS 5 TELAMONIA

(From the whitish, lint-like fibres of the veil, *Gr telamon*, lint)

Veil universal, somewhat double *Pileus* moist, hygrophanous, at first smooth or sprinkled with the superficial, arachnoid, whitish

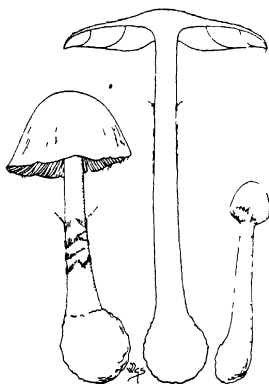


Fig 57 —*Cortinarius (Telamonia) armillatus* Fr
Young examples and section of a mature specimen One third natural size

fibres of the veil, thin or moderately compact at the middle, thin towards margin, splitting *Stem* annulate from the inferior veil, or peronate with scales, somewhat cortinate at the apex *Flush* thin

throughout or becoming so abruptly near the margin, scissile (Fig 57)

The species are mostly large and handsome Species 1086—1128

a *Platyphyllæ* Gills broad

Stem and *Cortina* white or whitish 1086—1092

Stem violaceous *Cortina* usually white-violaceous Universal

Veil white Gills violaceous 1093—1098

Stem and *Veil* reddish or yellow, except 1104 Gills tawny or cinnamon, neither violaceous nor becoming brown

1099—1107

Stem becoming fuscous *Veil* fuscous or dull Gills dark coloured 1108—1114

b *Leptophyllæ* *Pileus* thin *Stem* externally more rigid, subcartilaginous, stuffed or hollow, often attenuate downwards Gills more or less crowded, thin, narrow

Stem whitish, pallid, not floccoso-scaly 1115, 1116

Stem inclining to violet 1117—1119

Pileus and *Stem* tawny, ferruginous 1120—1122

Pileus fuscous *Stem* floccoso-scaly, fuscous 1123—1128

a *Platyphyllæ*

1086 **C. maeropus** Fr (from the long stem, Gr *makros*, long, *pous*, a foot) *a c*

P convex, obtuse, flat, brick-red to ferruginous, hoary with small sc *St* solid, equal, fibrillose, dull whitish, then as *P*, zoned *G* adnexed or adnate, distant, pallid to watery cinnamon

Woods, moist places Oct $3\frac{1}{2} \times 6\frac{1}{2} \times \frac{1}{2}$ in

1087 **C. laniger** Fr (from the woolly pileus, *lana*, wool) *a*

P hemispherical, expanded, obtuse, bright tawny clad with white sc *St* solid, equal, white, annulate or bi-annulate *G* rounded-adnexed, tawny-saffron

Odour strong Woods, larch, pine, beech, mossy places Sept $3\frac{1}{2} \times 6 \times \frac{3}{8}$ in

1088 **C. bivelus** Fr (from the double veil, *bis*, double, *velum*, a veil) *a c*

P convex, obtuse, plane, tawny-ferruginous, mid spotted or darker *St* solid, clavato-bulbous, dull whitish, squarrose below *G* adnexo-rounded, bright tawny-cinnamon

Taste mild, odour strong Woods Sept—Oct $3\frac{3}{4} \times 3 \times \frac{1}{2}$ in

1089 **C. bulbosus** Fr (from the bulbous stem) *a b*

P campanulato-expanded, gibbous, olivaceous, or date-brown to reddish fuscous *St* solid, paler than *P*, yellow below, fugaciously zoned white *G* adnate, subdistant, cinnamon, never violet

Odour of radish Woods, mossy places, rare Sept—Oct $3\frac{1}{2} \times 3\frac{3}{4} \times \frac{1}{2}$ in

1090 C urbleus Fr (from its habitat, near trees and human habitations, *urbs*, a city) *a b*

P hemispherical, convexo-plane, clay-whitish, marg crenato-torn *St* solid, equal, white zoned *G* emarginate, crowded, watery-ferruginous

Grassy places Sept–Oct $2\frac{1}{2} \times 2\frac{1}{2} \times \frac{3}{8}$ in

1091 C licinipes Fr (from the woolly stem, *licium*, lint, *pes*, a foot) *a b*

P campanulate, flat, obtusely umbonate, pale yellow to pallid tan *St* stuffed to hollow, equal, whitish, fugitive floccose, villous below, annulate *G* adnate, subcrowded, watery cinnamon

Odour none Woods, fir, damp places Oct $2\frac{1}{2} \times 2 \times \frac{3}{8}$ in Var *robustus* Cooke is larger and stouter than type

1092 C microcycus Fr (from the veil, forming a small circle, *Gr mikros*, small, *kuklos*, a circle) *a b*

P campanulato-expanded, reddish-fuscos, mid darker, paler when dry *St* stuffed, attenuate upwards, whitish, zoned white *G* adnate, distant, lilac to cinnamon

Under trees, pines Oct $1\frac{3}{8} \times 2 \times \frac{3}{8}$ in

1093 C torvus Fr (from its habit, growing in wild places as contrasted with **1090**, *torvus*, savage) *a b c*

P convex, obtuse or subumbonate, brick-red, brown, coppery or pale brown, shaded purplish *St* solid, clavate or equal, pale violaceous above, whitish and floccoso-scaly below *A* white *G* adnate, thick, distant, becoming purplish-umber and dark cinnamon *Flesh* faintly dull purplish, often much eaten by larvæ

Taste insipid, not unpleasant Odour disagreeable, like **648** Woods, mixed beech, frequent Aug–Oct $4\frac{1}{2} \times 5\frac{1}{2} \times \frac{1}{2}$ in Intermediate forms occur between this and **1094**

1094 C impennis Fr (from its smoothness as contrasted with **1095** *impennis*, without feathers) *a b*

P hemispherico-convex, glabrous, brown to reddish, marg silky and pale violet when young *St* solid to hollow, equal or subclavate, fibrillose, pallid, with a white *Z* *G* adnate or emarginate, very broad, cinnamon, shaded flesh-violet, becoming watery ferruginous Substance soft and watery

Taste none Woods, pine, amongst dead leaves Sept–Oct $4\frac{3}{8} \times 5\frac{1}{2} \times \frac{3}{8}$ in Var *lucorum* Fr *St* sometimes tinged with violet above *G* emarginate, cinnamon slightly shaded violet Massee (*Linn Fun*, *Fl* 192) regards this as a species

1095 C plumiger Fr (from the scales on the pileus and stem, *plumiger*, bearing feathers) *a*

P convexo-plane, umbonate, fuscous, olive-shaded to brick-tan, white floccoso-scaly *St* solid, clavate, floccoso-scaly below, whitish *A* white *G* adnate, scarcely crowded, becoming pale cinnamon

Woods, mixed Sept–Oct $2\frac{1}{2} \times 2\frac{1}{2} \times \frac{5}{16}$ in

1096 C scutulatus Fr (from the stem, chequered with the veil, *scutula*, lozenge-shaped) *a b*

P hemispherico expanded, squamuloso-rivulose or lacunosowrinkled, purple-umber or brick-fuliginous, marg white silky
St solid, subclavate, deep violaceous to fuscous, annulate and 4- to 7-zoned with white V *G* adnate, becoming cinnamon
Flesh violaceous

Odour strong of radish Woods, moist places Aug -Oct $2\frac{3}{8} \times 4\frac{3}{8} \times \frac{3}{8}$ in

1097 C evernius Fr (from the stem growing tall *cernuus*, sprouting) *a b c*

P conico-campanulate, expanded, obtuse or subumbonate, purple-bay-brown to pale pink-brown or umber with purplish marg, hoary when old *St* stuffed, slightly attenuate upwards, squamulose, violaceous or paler than *P*, obsoletely multi-zoned
G adnate, distant, becoming cinnamon *Flesh* yellowish-white in *P*, purplish or greyish in *St*

Woods, pine, mixed, damp places, frequent Sept -Dec $2\frac{1}{2} \times 5\frac{1}{2} \times \frac{1}{2}$ in

1098 C quadricolor Fr (from the four colours, yellow, violaceous, cinnamon, and white) *a b*

P campanulate, expanded, umbonate, yellow to tawny *St* stuffed to hollow, fibrillose, violaceous-whitish *A* fugitive, white
G adnate, distant, sometimes violet, becoming cinnamon, edge white

Woods, beech Oct $1\frac{3}{4} \times 3 \times \frac{1}{2}$ in

1099 C armillatus Fr (from the rings or zones round the stem, *armilla*, a ring) *a b c*

P campanulate, flat, dry, innately fibrillose or squamulose, brick-red or sienna, often cinnabar-zoned or spotted at marg *St* solid, bulbous, fibrillose below 1- to 6-zoned vermilion
G rounded or sinuato-adnate, becoming dark ferruginous all-

Taste agreeable or insipid, odour of radish or of 1394, or of colchion potatoes Woods, mixed, under hazel, frequent Aug -Oct $4\frac{1}{2}$
The vermilion zones are permanent after drying

1100 C hæmatochelis Fr (from the blood-red zone of *hemundus*, Gr *hæma*, blood, *chelus*, the chest) *a b c*

P convex, gibbous, flat, pallid fuscous-brick-col¹, subclavate, sepia *St* solid, clavate, zoned rufous *G* ac² above Z crowded, pallid cinnamon

Woods, beech Aug -Oct $5 \times 4\frac{1}{2} \times \frac{1}{2}$ in Col
permanent after drying acorn, *glans*) *a*

1100a C paragaudis Fr (from the fibril¹ becoming dull pale-border or trimming of a garment) *a*, subfibrillose with *a*

P somewhat fleshy, campanulato-exp³ somewhat fibrillose, brown, tawny⁴ Autumn $1\frac{3}{4} \times 3 \times \frac{3}{4}$ in
somewhat fibrillose, brown, tawny⁴ with white Co, cingulate, times orange *St* hollow, twist⁵

with reddish adpressed fibrillose sc *G* adnexed, ventricose subdistant, opaque cinnamon

Damp places under pines Autumn $2\frac{1}{2} \times 6\frac{1}{2} \times \frac{3}{8}$ in Var *prestigiosus* Fr
P submembranous, striate, silky fibrous towards edge, dark bay, then lighter *St* red squamulose *G* distant, tawny cinnamon Under pines

1101 **C croceofulvus** Fr (from the colour of the pileus, *croceus* saffron, *fulvus*, tawny) *a*

P campanulate, obtuse, flat, bright tawny-orange *St* hollow, equal, striate, yellow, rufous-tinged *Z* a bright red line *G* adnato-sinuate, thick, subdistant, becoming ferruginous

Woods, fir Sept $2\frac{1}{2} \times 2\frac{1}{2} \times \frac{3}{8}$ in

1102 **C limonius** Fr (from the lemon-coloured pileus, *limoncus*, lemon-coloured) *a*

P convexo-plane, obtuse, tawny lemon-yellow, sometimes orange *St* solid, equal, orange-yellow, light yellow floccoso-scaly *G* adnate, distant, at first light yellow *Flush* colour as *P*

Odour none Woods, pine, rare $3\frac{1}{2} \times 3\frac{1}{2} \times \frac{1}{2}$ in

1103 **C helvolus** Fr (from the pileus, becoming pale yellow *helvulus*) *a b*

P convexo-plane, obtuse or subumbonate, at first dark tawny-cinnamon *St* solid, equal, fibrillose, paler than *P* with a median ferruginous *A* *G* emarginate, distant, thick, somewhat veined

Woods, mixed, wooded pastures Sept-Oct $2\frac{1}{2} \times 3\frac{1}{2} \times \frac{1}{2}$ in

1104 **C hinnuleus** Fr (from its fawn colour, *hinnulus*) *a b c*

P campanulato-expanded, umbonate often pierced-dotted, tawny cinnamon, marg silky *St* stuffed, slightly attenuate downwards, dull tawny *Z* broad, fugitive, white *G* emarginato-adnexed or adnate, distant, thin, veined

101 tasteless Woods, mixed, common Aug-Dec $3\frac{1}{2} \times 4 \times \frac{3}{8}$ in Variable in size

*P*₁ **gentilis** Fr (from its relationship to its neighbours, *gentilis*, and of the same race) *a b c*

subcampanulate, expanded, obtuse, orange, tawny-cinnamon or emarginate *St* stuffed to hollow, equal, colour as *P*, with 3-5 watery or sulphur zones *G* adnate, very distant, thick flowish or pale brownish

Taste none

Var *lucorum* Woods, chiefly pine Aug-Oct $1\frac{1}{2} \times 6 \times \frac{1}{2}$ in

cinnamon slight *es* Fr (from a fancied resemblance to certain this as a species *chella*, a Discomycetous fungus) *a b c*

1095 **C plumiger** obtuse or umbonate, hygrophaneous, ferruginous *plumiger*, bearing striate *St* hollow, equal, flexuous, sub-

P convexo-plane, silky above *Z* broad, yellowish *G* adnate, white floccoso-scaly *ant*, violaceous umber to cinnamon and whitish *A* white

pale cinnamon

ng rotten leaves, uncommon Aug-Oct Woods, mixed Sept-Oct 2.

- 1107 C rubellus** Cooke (*rubellus*, ruddy) *a*
P campanulate, expanded, umbonate, rufous-orange, mid darker *St* solid, equal or subclavate, paler than *P*, 3- to 6 zoned ferruginous *G* adnato-sinuate, scarcely crowded, pale then bright ferruginous-red
 Swampy places Autumn $2\frac{1}{2} \times 3\frac{1}{2} \times \frac{1}{2}$ in With the appearance of an abnormal 1099 or 1111
- 1108 C bovinus** Fr (from its stout habitat, *bovinus*, like a bull) *a b*
P convex, obtuse, pallid to watery-cinnamon and tawny *St* solid, spongy-bulbous, brownish-cinnamon, whitish above the brown *Z* *G* adfixed or adnate, subdistant, cinnamon, becoming dark
 Woods, mixed, pine Sept $3 \times 2\frac{1}{2} \times 1$ in
- 1109 C nitrosus** Cooke (from the nitrous odour) *a b*
P convexo-expanded, obtuse, flat, becoming scaly, fawn to tawny mid brownish and darker *St* solid, subequal ochreous, paler than *P*, marked below with squamose zones *G* emarginate, subdistant, violet to watery-cinnamon *Flush* pale brown
 Woods, mixed Autumn $2\frac{1}{2} \times 2 \times \frac{3}{4}$ in
- 1110 C brunneus** Fr (from its brownish colour, *brunneus*, brown) *a b*
P campanulate, flat, subumbonate, umber to dull reddish-tan *St* stuffed, subequal, brownish, white-striate *A* dull brownish-white *G* rounded-adnate, thick, distant, purplish to brownish-cinnamon
 Woods, pine, moist places, amongst grass Sept-Oct $3\frac{1}{2} \times 3\frac{1}{2} \times 1$ in
- 1111 C brunneofulvus** Fr (from its colours, *brunneus*, brown, *fulvus*, tawny) *a b*
P convexo-flat, subumbonate, fibrilloso-virgate, tawny-cinnamon marg at first white fibrillose *St* stuffed to solid, subequal, fibrilloso-striate, tawny, pitched cinnamon, with a fugitive dull-white *Z* *G* adnate, ventricose, subdistant, tawny-cinnamon
 Woods, pine, oak, amongst moss Sept $1\frac{3}{4} \times 2\frac{1}{2} \times \frac{1}{4}$ in
- 1112 C injeundus** Fr (from its unpleasant odour, *injeundus*, unpleasant) *a b*
P convex, plane, obtuse, fuscous-cinnamon *St* solid, subclavate, colour as *P*, then tawny-yellow, faintly lilac above *Z* *G* emarginate, lilac-tan, then clay
 Odour musty Woods, fir Nov $5 \times 4\frac{1}{2} \times \frac{3}{4}$ in
- 1113 C glandicolor** Fr (from its colour as of the acorn, *glans*) *a*
P campanulate, expanded, umbonate, becoming dull pale-ochreous, marg striate *St* hollow, subfibrillose with a fugacious white *Z* *G* adnexo-adnate
 Woods, pine, *Sphagnum* bogs, mossy places Autumn $1\frac{1}{2} \times 3 \times \frac{3}{8}$ in
 Var *curtus* Fr *St* 1 in, flexuous, peronate with white *Co*, cingulate, um becoming blackish

1114. C punctatus Fr (from the minute dots or punctures on the pileus, *punctatus*, dotted) *a*

P campanulate, flat, subumbonate, tan or somewhat cinnamon.

St fistulose, fibrilloso-striate, yellow-fuscon, with a fugacious brownish *Z* *G* adnato-rounded, very distant, brown-cinnamon

Woods, beech, fir Autumn $1\frac{3}{4} \times 2\frac{3}{8} \times \frac{1}{8}$ in

b Leptophyllæ

1115 C triformis Fr (from its assuming three forms) *a*, the type form, *Schafferi*

P flat, gibbous or subumbonate, fawn to yellowish and whitish-grey *St* stuffed, subbulbous, pallid or faintly pinkish-ochre *A* distant, white *G* emarginato-adnate, ventricose, watery-ochreous to pale cinnamon

Woods, beech Oct $3\frac{3}{8} \times 3\frac{1}{2} \times \frac{5}{8}$ in 1 *Schafferi*, as above 2 *Mellio palens* *P* hemispherical, honey colour, then pale tan *G* at first yellowish *St* conically attenuate, pallid yellow Woods, pine 3 *Fuscopallens* *P* thin, fuscous, becoming pale *G* at first watery white Woods, pine

1116 C biformis Fr (from its resembling two subgenera, a *Telamonia* with the appearance of a *Hydrocybe*) *a*

P campanulate, expanded, umbonate, dark ferruginous-brown to pale bay *St* stuffed, attenuate downwards, fibrilloso-striate, paler than pileus *A* fugitive, white *G* adnato- or emarginato-rounded, greyish to watery-cinnamon or whitish umber

Woods, mixed Oct $2\frac{1}{2} \times 2\frac{3}{8} \times \frac{1}{4}$ in With the habit of 1140

1117 C periscelis Fr (from the garter-like annulus, Gr *periskelis*, a garter) *a c*

P campanulate, convex, umbonate, lilac, greyish or brownish, white-silky *St* stuffed, colour as *P*, or pale steel grey, fibrillose, multi-zoned fuscous *G* adnato-ascending, pallid or salmon-tan to dark ferruginous

Bogs and under beeches Autumn $2 \times 3\frac{1}{2} \times 1\frac{3}{8}$ in

1118 C flexipes Fr (from the flexuous stem, *flexus*, bent, *pes*, a foot) *a b*

P campanulate, expanded, acutely umbonate, dark-brown-fuscous, shaded violaceous to pale yellow, hoary-fibrillose *St* stuffed, pallid violaceous or steel-grey, floccoso-scaly below the white *Z*. *G* adnate, slightly rounded, purple or umber-violaceous to cinnamon, edge whitish

Woods, larch, fir, frequent Sept-Oct $1\frac{3}{8} \times 3 \times \frac{1}{8}$ in

1119. C flabellus Fr (from a fancied resemblance to a small fan, *flabellus*) *a b*

P conical, expanded, umbonate, olivaceo-fuscous to yellow-umber, then tan, at first white scaly then incised and torn-fibrillose *St* stuffed, floccoso-scaly, pallid, apex violet.

Z or *A* white or none *G* adnate, dark violaceous to cinnamon and olive

In troops, gregarious Odour strong, somewhat of radish Woods, beech, moist places $\frac{3}{4} \times 2\frac{3}{4} \times \frac{1}{2}$ in

- 1120 **C psammocephalus** Fr (from the furfuraceo-squamulose pileus, as if sand-covered, Gr *psammos*, sand, *kephale*, the head) *a* fawny-cinnamon

P convex, plane, subumbonate, at length revolute *St* stuffed to hollow, slightly attenuate upwards, squamulose below *A* *G* sinuato-adnate, becoming umber-cinnamon

Odour none Woods, mixed, fir, charcoal heaps, frequent Sept-Oct $2\frac{1}{4} \times 1\frac{3}{8} \times \frac{3}{16}$ in

- 1121 **C ineisus** Fr (from the cracked, incised pileus) *a b*

P convex, expanded, broadly umbonate, naked, then fibrilloso-scaly, brown of various shades *St* stuffed, fibrous, fibrillose, tan to ochreous and brown *A* white or obsolete *G* adnate, subdistant, salmon to deep sienna

In troops or subcespitose Odour slight Woods, pine, naked ground, dry places, dry turf bogs Sept $1\frac{1}{2} \times 1\frac{1}{8} \times \frac{1}{8}$ in

- 1122 **C ilhopodius** Fr (from the colour of the stem, as if dirty, Gr *ilus*, mud, *pous*, a foot) *a b c*

P expanded, umbonate, opaque cinnamon to tan *St* stuffed, equal, fuscous, pale saffron-cinnamon within *A* median white *G* adnate, subdistant, thin, salmon to cinnamon

Taste somewhat of radish Woods, mixed, fir, beech, common July-Dec $1\frac{1}{8} \times 2\frac{1}{4} \times \frac{3}{16}$ in

- 1123 **C hemitrichus** Fr (from the partly hairy pileus and stem, Gr *hemi*, half, *thrix*, a hair) *a b*

P convex, expanded, umbonate, grey or dark fuscous to fuscous-tan, erect white-fibrillose, especially round marg, um dark *St* hollow, equal, white flocculose below the median white *A* *G* adnate, very crowded, clay to cinnamon or sienna *Flush* sienna

Woods, mixed, mossy places, boggy ground, amongst fallen leaves, uncommon April-Oct $1\frac{1}{2} \times 2\frac{1}{4} \times \frac{1}{4}$ in

- 1124 **C stemmatus** Fr (from the silky marginal band of the pileus, like a wreath, Gr *stemma*) *a*

P convex, expanded, subumbonate, dark to pale brown *St* stuffed to hollow, equal or slightly attenuate downwards, ferruginous-brown within and without, with grey-white zones *G* adnate, crowded, opaque date-brown

Woods, moist places Autumn $1\frac{1}{2} \times 3\frac{3}{8} \times 1\frac{3}{16}$ in

- 1125 **C rigidus** Fr (*rigidus*, firm) *a b*

P conico-campanulate, umbonate, cinnamon-bay to yellowish-tan, marg pellucidly striate *St* stuffed to hollow, equal, colour as *P* variegated with tan-white and umber zones *G* adnate, ventricose, subcrowded, salmon to cinnamon

Odour strong Woods, damp places Nov $1\frac{3}{8} \times 2\frac{3}{8} \times 1\frac{3}{16}$ in

1126 C paleaceus Fr (from the chaffy white scales of the pileus, *palea*, chaff) *a b c*

P convex, expanded, acutely umbonate, fuscous to greyish, mid-umber, marg paler or whitish *St* fistulose, floccoso-scaly, fuscous within and without *A* and 1-7 zones whitish *G* adnate, crowded, grey pallid to cinnamon

Odour weak Woods, beech, moist places Sept-Nov $1\frac{1}{2} \times 2\frac{3}{4} \times \frac{1}{8}$ in

1127 C iris Mass (from the rainbow-like colours, *iris*, the rainbow) *a*

P conical, expanded, umbonate, pale ochreous-brown, densely white-fibrillose, marg silky, splitting *St* stuffed to solid, clavate, densely fibrillose, violet, then pale above the fibrillose, bright-brown *A*, orange-brown at base within and without *G* sinuato-adnate, subcrowded, dull ochreous to orange-brown

Solitary, or in clusters of two to four Woods Oct $1\frac{1}{4} \times 3 \times \frac{1}{8}$ in

1128 C Cookei Quel (after Dr M C Cooke) *a b*

P conical, hemispherical, umbonate, tawny-yellow marg woolly, white *St* stuffed, pale yellowish with 4-5 floccose yellow zones *G* adnate, violet to reddish and rust-colour

Woods, fir $\frac{1}{2} \times 1\frac{5}{8} \times \frac{1}{16}$ in

SUBGENUS 6 HYDROCYBE

(From the moist or hygrophanous pileus Gr *hudor*, water, *kube*, a head)

Vel thin, fibrillose, rarely collapsing and forming an irregular zone on the stem *Pileus* smooth or only covered with white

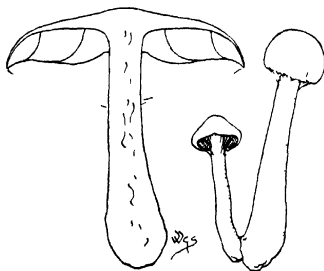


Fig. 58 — *Cortinarius (Hydrocybe) saturninus* Fr and section
One half natural size

superficial fibrils, not viscid, but moist when fresh, changing colour when dry, flesh very thin, scissile, rarely more compact in the middle

Stem slightly rigid, subcartilaginous externally, not sheathed, annulate or scaly (Fig 58) Species 1129—1167

a Firmiores *Pileus* subfleshy, convex, or campanulate-convex, then expanded, obtuse or at length gibbous, margin at first incurved *Stem* for the most part attenuate upwards

Stem and cortina white 1129—1137

Stem and gills inclining to violet 1138—1141

Stem and somewhat obsolete veil yellow or rufous 1142—1146

Stem inclining to fuscous *Cortina* pallid, dull or white

Gills dark 1147—1150

b Tenuiores *Pileus* somewhat membranous, conical, then expanded, umbonate, umbo acute or rarely obtuse and vanishing, margin at first straight *Stem* usually almost equal, or attenuate downwards

Stem white 1151—1156

Stem inclining to violet or reddish 1157—1160

Stem yellowish, commonly becoming pale 1161—1163

Stem inclining to fuscous 1164—1167

a Firmiores

1129 **C firmus** Fr (from the compact substance, *firmus*, firm) *a*

P ferruginous to ochreous, marg tan *St* solid, clavate, fibriloso-striate *Z* ferruginous *G* adfixed or emarginate, pale umber to cinnamon

Woods, mixed, grassy places Autumn $5 \times 3\frac{1}{2} \times 1\frac{1}{2}$ in

1130 **C subferrugineus** Fr (from the colour of the pileus, somewhat rust-colour, *ferrugo*), *a c*

P umbonate, hygrophanous, dry, ferruginous to watery-cinnamon tawny or tan, *V* at marg only *St* solid, attenuate upwards, adpressedly fibrillose, pallid, saffron-yellow at base *G* emarginate or adnate, subcrowded, pallid to dark ferruginous

Taste and odour unpleasant Woods, oak, amongst rotting pine leaves Sept–Oct $2\frac{1}{2} \times 4\frac{3}{4} \times \frac{3}{8}$ in

1131 **C armeniacus** Fr (from the colour of the pileus, like the apricot, *Pyrus armeniacus*) *a b c*

P obtuse or subumbonate, tawny-cinnamon to ochreous, marg substriate *St* stuffed, attenuate upwards *Z* white *G* adnate, pallid to clay-cinnamon

Woods, pine, uncommon Aug–Oct $2\frac{1}{2} \times 2\frac{3}{4} \times \frac{3}{8}$ in Var *fulvarius* Fr *P* yellow, white when dry

1132 **C damascenus** Fr (from the colour of the pileus, like the damson) *a*

P rivulose when dry, bay-cinnamon or deep umber with a crimson shade to brick-red *St* solid, equal *Z* whitish *G* rounded-adnate, cinnamon or paler than *P*

Subcespitose Taste acrid Under trees, grassy places, pastures Sept $3\frac{1}{2} \times 3\frac{1}{2} \times \frac{1}{2}$ in

- 1133 C privignus** Fr (from its being fragile in a non-fragile group, *privignus*, a stepson) *a b*

P obtusely umbonate, flat, reflexed, hygrophanous, fuscous to tan
St stuffed to hollow, equal, silky with V and Z *G* rounded-adnate, not crowded, watery- then opaque-cinnamon

Taste scarcely acrid Odour strong, unpleasant Woods, pine, oak, damp places Oct $2\frac{1}{2} \times 2 \times \frac{1}{2}$ in

- 1134 C duracinus** Fr (from its firmness, *durus*, hard, *acinus*, a berry) *a b*

P obtusely umbonate, pale brick-colour or sienna to tan, or mid sienna and marg tan, marg clad with V *St* solid, ventricose, attenuato-rooting, imperfectly zoned *G* adnate or emarginate, ventricose, pale cinnamon or whitish-sienna

Woods, old pastures, near stumps Aug-Oct $2\frac{1}{2} \times 3 \times \frac{1}{2}$ in

- 1135 C illuminus** Fr (dark, as contrasted with the allied non-British *C candelaris*, *illuminus*, dark) *a b*

P gibbous, or subumbonate, pale brick-red, or orange with mid orange-sienna to tan *St* stuffed, equal or slightly attenuate upwards, silky-fibrillose, pallid or tan-ochre, or white above and ochre to sienna below *Z* ochre *G* adnate, subcrowded, subdistant, pallid to cinnamon or whitish-sienna

Woods, pine Sept $1\frac{1}{2} \times 2\frac{5}{8} \times \frac{3}{16}$ in

- 1136 C tortuosus** Fr (from the somewhat twisted stem, *tortuosus*, twisted) *a b*

P gibbous, ferruginous-bay to brick-red, or warm tan with mid and marg somewhat dark crimson-umber, purple or turkey-red when bruised *St* stuffed, equal, silvery, spotted with white imperfect zones *G* adnate, crowded, tawny, purple or turkey-red when bruised

Woods, pine, damp places Autumn $2\frac{1}{2} \times 4\frac{1}{2} \times \frac{3}{8}$ in

- 1137 C dilutus** Fr (from the watery colour, *dilutus*) *a*

P obtuse or subumbonate, opaque bay-brown or pale brick-red to tan, marg white-silky and fringed with V *St* stuffed, equal, silky-white *G* deeply emarginate, ventricose, crowded, pale cinnamon or brownish-ochre

Odour none Woods, rare Nov $1\frac{3}{4} \times 2\frac{3}{8} \times \frac{3}{16}$ in

- 1138 C saturninus** Fr (from its colour, *saturninus*, gloomy) *a b*

P obtuse or umbonate, dark bay-brown or umber, soon pale, marg silky and appendiculate with V *St* stuffed to hollow, attenuate upwards, deep violet or purple to pale dove-grey, partially white-zoned *G* rounded-adfixed or emarginate, crowded, thin, pale purple-grey to purplish and ferruginous

Sometimes subcaespitose Odour faint Grassy places, Oct-Nov $3\frac{1}{2} \times 2\frac{1}{2} \times \frac{1}{2}$ in

1139 C imbutus Fr (from the moist, stained flesh, *imbuo*, to soak) *a*

P flat, obtuse, sienna-brown to pale yellowish, marg white hoary fibrillose *St* solid, equal, whitish, pale violaceous above *G* rounded-adnate, subdistant, dark bluish-grey to watery-cinnamon *Flesh* dingy pale violaceous at top of *St*

Subcrespitose Woods Sept $3\frac{1}{2} \times 2 \times \frac{1}{2}$ in

1139a C sciophyllus Fr (from the dusky gills, *Gr skia*, shade, *phyllon*, a leaf) *a*

P thin, convexo-expanded, obtuse, blue-purple-slate, paler towards marg mid fleshy, edge narrow, silky white, *Co* white *St* solid, slightly attenuate upwards, pale lavender to violet, gradually reddish towards the white base, clad with irregular white *Z* *G* adnate, crowded, narrow, purple-brownish or dusky umber *Flesh* purple-slate above, salmon-buff and reddish below

Single or cespitose Under beeches Autumn $1\frac{3}{4} \times 2\frac{1}{2} \times \frac{1}{2}$ in

1140 C castaneus Fr (from its colour, *castanea*, a chestnut) *a b c*

P obtuse or subumbonate, shining fuscous- or purplish-chestnut, mid darker *St* stuffed, fibrillose with *V*, pale purplish above, purple-brownish below *Z* white or ochre *G* adnate or emarginate thin, violaceous to ferruginous, edge whitish

Gregarious, sometimes cespitose Edible Taste like that of **1394** or **792**, odour none or fungoid Woods, pastures, gardens, on the ground, rarely on wood, common June-Nov $1\frac{1}{2} \times 2\frac{1}{2} \times \frac{1}{8}$ in

1141 C bicolor Cooke (from its two prevailing colours, purple and tan) *a b*

P broadly and acutely umbonate, whitish or lilac shaded *V* fugacious, white *St* solid, equal or attenuate downwards, pallid violet or steel-grey to whitish, zoned *G* adnate with a tooth, subcrowded, purplish-violet to cinnamon *Flesh* whitish to bright lavender, purple at base of *St*

Woods, mixed, on the ground Aug-Oct $2\frac{1}{2} \times 2\frac{1}{2} \times \frac{3}{8}$ in

1142 C balaustinus Fr (from the colour of the pileus, like the flower of the pomegranate, *Gr balaustion*) *a*

P convex, flat, virgate, innato-fibrillose, shaded sienna-crimson or vermilion *St* solid, fibrilloso-striate, pallid to tawny-ferruginous within and without, zoned red-sienna *G* adnate, subcrowded, ferruginous-red or paler than *P*

On the ground, woods, mixed, beech Oct $2\frac{1}{4} \times 2\frac{3}{4} \times \frac{1}{8}$ in

1143 C colus Fr (from the fibrillose stem, *colus*, a distaff) *a b*

P convex, obtuse or obtusely umbonate, brown-rufescent, deep bay or umber, becoming paler *St* stuffed, attenuate upwards, paler than *P*, base encircled by blood red or fiery-saffron mycelium *G* ascending-adnate, subcrowded, pale lilac or brownish to dark cinnamon

Woods, pine Oct $2\frac{3}{8} \times 3\frac{3}{8} \times \frac{1}{8}$ in

- 1144 C. isabellinus** Fr (from the dirty-yellow colour, like unwashed linen, from Isabel of Austria, daughter of Philip II, who vowed not to change her linen till Ostend was taken) *a b*
P subumbonate, at first honey-colour then paler *St* stuffed, equal, striate, colour as *P*, or tan, imperfectly zoned *G* rounded-adnate, subdistant, yellow to cinnamon
 Woods, pine Autumn $1\frac{3}{4} \times 3\frac{1}{2} \times \frac{3}{8}$ in
- 1145 C. renidens** Fr (from the glistening pileus, *renidens*, shining) *a*
P expanded, flat, at first broadly and acutely umbonate, hygrophanous, ferruginous-tawny to ochreous *St* stuffed, at first bulbous, then equal, fibrillose, colour as *P*, imperfectly zoned yellow *G* rounded-adnate, subcrowded, pallid cinnamon to tawny
 Cespitose Woods, shady places Sept $3 \times 3 \times \frac{3}{8}$ in
- 1146 C. angulosus** Fr (from the small, pointed scales of the pileus, *angulosus*, full of corners) *a b*
P convex, expanded, shining tawny-yellow, variegated with small sienna or ochreous sc *V* fugacious, tawny *St* equal, striate, tan-orange, zoned tawny-sienna *G* adnate, thick, subdistant, orange-sienna
 Woods, hr Aug-Sept $2\frac{1}{2} \times 2\frac{1}{2} \times \frac{1}{2}$ in Var *racilescens* Mass *P* somewhat fleshy *St* hollow, base somewhat attenuate, tortuous
- 1147 C. uraceus** Fr (from its mouse-colour, (Gr *hurax*, a mouse) *a b*
P umbonate or obtuse, subfibrillose, brown, olive, red or buff *St* stuffed or hollow, equal, pale or yellowish above, fuscous or blackish below, imperfectly zoned *G* adnate or sinuate, distant, cinnamon
 Taste and odour not unpleasant Woods, pine Nov $1\frac{1}{2} \times 3\frac{1}{2} \times \frac{1}{4}$ in
- 1148 C. jubarinus** Fr (from the shining pileus, *jubar*, radiance) *a b c*
P umbonate, often repand, rich tawny cinnamon, marg white-silky with *V* *St* stuffed or hollow, fibrilloso-striate, pale tawny within and without *G* ascending-adnate, ventricose, subdistant, tawny-cinnamon
 Woods, pine, grassy places, on pine leaves May $2 \times 2\frac{1}{2} \times \frac{1}{8}$ in
C. irregularis Fr has been published as British by Müssce and Crossland (*Fung Fl Yorks* p 97) following Bolton (*Hist Brit Fung* t 13), but this figure and description differ entirely from Fries, *Hym Eur* p 394, and *Hym Succ* n p 106 Thus—
 In Fries—*P* dry, glabrous *St* brick red *G* decurrent, ferruginous Hab amongst pine leaves
 In Bolton—*P* covered with glutinous matter *St* pale grey *G* adnexed or free, pale dusky flesh colour Hab pastures and meadows Bolton's plant is probably an *Entoloma* with viscid *P*
- 1149 C. pateriformis** Fr (from the shape of the pileus when depressed, like a *patera* or libation saucer) *a b*
P plane to depressed, shining dark chestnut, sprinkled with fugacious white fibrils *St* stuffed or hollow, equal, fibrillose,

white to dusky, zoned sienna *G* emarginato-adnate, ventricose, brick-red to vinous-ochre

Woods, damp grassy places Sept-Oct $2\frac{3}{8} \times 3 \times \frac{1}{8}$ in

- 1150 **C unimodus** Britz (from its uniform colour, *unimodus*, of one kind) *a b*

P umbonate, brown, shaded rufous, vinous or sienna *St* stuffed, equal, paler than *P*, sometimes pale purple above, imperfectly 2-5-zoned *G* emarginato-adnate, distant, brown

Grassy places Sept-Oct $2 \times 3\frac{1}{2} \times \frac{1}{4}$ in

b Tenuiores

- 1151 **C dolabratus** Fr (from the shape of the stem and gills as seen in section, *dolabra*, a pickaxe) *a b*

P obtusely umbonate, smooth, brick red to tan, marg silky *St* stuffed or hollow, smooth, white, sometimes faintly ochreous above *G* rounded-adnate, distant, tawny-cinnamon or orange

Odour strong, pungent nauseous, stinking Woods, pine, damp places amongst *Vaccinium*, *Sphagnum*, etc Sept-Nov $3\frac{1}{2} \times 3\frac{1}{2} \times \frac{1}{2}$ in

- 1152 **C rigens** Fr (from the rigid stem) *a b*

P obtusely umbonate, smooth, tan clay to tan-whitish *St* stuffed, cartilaginous externally, zoned *G* sinuato-adnate, watery-clay to cinnamon or sienna

Woods, pine, mixed, uncommon June-Oct $1\frac{3}{4} \times 2\frac{1}{2} \times \frac{1}{16}$ in

- 1153 **C Krombholzii** Fr (after J V Krombholz) *a b*

P obtusely or acutely umbonate, smooth, yellowish-brown to ochreous, mid always dark, marg appendiculate with V *St* fistulose, naked, whitish *V* membranous, fugitive, whitish *G* rounded-adnexed, dull purplish-brown, edge yellowish

Often caespitose Amongst moss $2\frac{3}{8} \times 4\frac{1}{2} \times \frac{1}{8}$ in Much like a *Hypholoma*

- 1154 **C Reedii** Berk (after Miss Reed, sister of Mrs Hussey) *a b*

P conical, expanded, strongly umbonate, brown, mid areolate *St* solid, bulbous, shaded pale umber *G* ascending, attenuato-free, ventricose, white to cinnamon

Taste and odour none Amongst moss and beech mast May $1\frac{1}{4} \times 1\frac{1}{2} \times \frac{3}{16}$ in

- 1155 **C leucopus** Fr (from the white stem, Gr *leukos*, white, *pous*, a foot) *a b c*

P conical, expanded, umbonate, smooth, moist, yellowish or somewhat buff to tan *St* hollow, equal, attenuate upwards, shining, zoned *G* adnexed, crowded, ventricose, pallid to cinnamon

Woods, fir, mixed, frequent Sept-Nov $1\frac{1}{2} \times 1\frac{1}{2} \times \frac{3}{16}$ in

- 1156 **C scandens** Fr (from the long wavy stem, *scando*, to climb) *a b*

P conico-campanulate, obtusely or acutely umbonate, moist, smooth, tawny-ferruginous to honey-colour and tan, marg

striate, *Co* white *St* fistulose, flexuous, rooting, greatly attenuate downwards, yellowish to whitish *G* ascending-adnate, tan to yellow and tawny-cinnamon

Woods, pine, moist places Oct–Nov $1\frac{1}{2} \times 2\frac{1}{2} \times \frac{3}{16}$ in

1157 *C erythrinus* Fr (Gr *erythros*, red) *a*

P umbonate, smooth, bay-brown-rufous, or vinous-sienna to tawny, *Co* white *St* stuffed to hollow, equal, smooth, striate, white, pale purple or violaceous *G* adnexed or somewhat adnate, pallid to pale cinnamon or sienna

Woods, amongst leaves in damp places Oct $1\frac{1}{2} \times 1\frac{1}{2} \times \frac{1}{16}$ in Var *argyropus* Fr more slender than type *St* silvery, white mealy above

1158 *C decipiens* Fr (from its resemblance to several other species, *decipio*, to deceive) *a b c*

P acutely or obtusely umbonate, smooth, bay-brown to shining brick-red, mid darker *St* solid, stuffed or hollow, fibrillose, pale rufescent, clouded brick-red *Z* imperfect, fugacious, white *G* adnate, sometimes with a tooth, crowded, thin, sienna-umber or sienna-tan

Woods, mixed, frequent Sept–Oct $2\frac{1}{2} \times 3\frac{1}{2} \times \frac{1}{4}$ in Var *insignis* Fr *P* paler, *St* flexuous, glabrous, *G* less crowded

1159 *C germanus* Fr (from its close relationship to adjoining species *germanus*, born of the same parents) *a b*

P obtusely or acutely umbonate, silky, hygrophanous, fuscous to clay or tan-umber, mid sepia, marg whitish, or wholly tan *St* fistulose, equal, silvery-pale or somewhat lilac *Z* fugacious, ochre *G* adnate, slightly rounded, subdistant, watery-cinnamon

Odour powerful Woods, pine, beech Oct $1 \times 2\frac{1}{2} \times \frac{1}{8}$ in

1160 *C ianthipes* Fr (from the violet stem Gr *ianthos*, violet-coloured, *pous*, a foot) *a b c*

P obtusely umbonate, fibrillose, brown marg yellowish *St* stuffed, smooth, equal, violaceous, base rufescent, imperfectly zoned *G* adnexed or adnate subcrowded, brown olivaceous, then dark umber-sienna or deep red-brown

Woods Sept $\frac{3}{8} \times 1\frac{1}{2} \times \frac{1}{16}$ in

1161 *C detonsus* Fr (from the smooth pileus and stem, *detondeo*, to shear) *a c*

P subumbonate, slightly silky to somewhat smooth, brick-red, umber or yellowish *St* fistulose to stuffed, yellowish-pallid, dull purple at mid *G* adnate, subdistant, yellowish brick colour

Woods, pine, amongst moss in damp places Sept $1\frac{1}{2} \times 1\frac{1}{2} \times \frac{1}{8}$ in

1162 *C obtusus* Fr (from the obtuse umbo which at length disappears) *a*

P bay-brown-ferruginous, cinnamon, or orange-sienna to pale ochreous or tan-whitish, marg striate *St* stuffed to hollow

attenuate downwards, lighter than P, Co whitish G adnate, ventricose, orange-sienna, edge white

Gregarious Odour strong Woods, chiefly pine,requent April-Oct
 $1\frac{1}{2} \times 2\frac{1}{2} \times \frac{1}{4}$ in

1163 C acutus Fr (from the acute umbo) *a b c*

P honey-colour or pale yellow to whitish, marg white fibrillose
 St fistulose, equal, white-fibrillose, colour as P, zoned
 G adnate, crowded, thin, white-ochre, ochreous-cinnamon or watery-brown

Scattered, in troops, or cespitose Odour at length nitrous Woods, fir, mixed, moist places, frequent Sept-Nov $1\frac{1}{2} \times 2\frac{1}{2} \times \frac{1}{8}$ in

1164 C Junghuhnii Fr (after Francis Junghuhn) *a*

P papillate, cinnamon or dull crimson-orange to tawny, marg striate St stuffed to hollow, reddish, whitish below, adpressedly fuscous-fibrillose G adnate, subdistant, thin, reddish-ochre or olive shaded *Flsh* reddish

Odour none Woods, mossy places Aug $1\frac{1}{2} \times 2\frac{1}{2} \times \frac{3}{16}$ in

1165 C depressus Fr (from the pileus, at length depressed) *a*

P smooth, vinous- or ochreous-umber, marg at first silky then striate St hollow, attenuate downwards, reddish or yellow-brownish G adnate, ventricose, saffron-yellow, reddish or reddish-brown-ochre

Odour faint of stale fish or cucumber as in 709, which resembles this in habit Woods, moist places Autumn $1\frac{1}{2} \times 1\frac{1}{2} \times \frac{1}{4}$ in

1166 C milvinus Fr (from the coloration, like a kite's back, *milvus*, a kite) *a b*

P obtusely umbonate, olivaceous-fawn or olive to tan, marg striate, white squamulose St stuffed, equal, pale fuscous, with white silky spots, or whitish above, tan-brown below, Co white G adnate, subdistant, ochreous olive-tan to olive

Gregarious Odour strong Woods Oct $1\frac{3}{8} \times 2\frac{3}{8} \times \frac{1}{4}$ in

1167 C fasciatus Fr (from the fibrous-splitting stem, as if in bundles, *fasciæ*) *a b*

P acutely umbonate, smooth or subsilky, brick colour or umber, mid sepia St fistulose, equal, splitting longitudinally into fibres, pallid to cinnamon-fuscous, or variegated with bands of white, tan and brown G adnate, subventricose, thin, distant, cinnamon

Woods, pine, damp places, pastures under pines Sept-Oct $1\frac{3}{8} \times 2\frac{3}{8} \times \frac{1}{8}$ in

XLV GOMPHIDIUS Fr

(From the shape, like a large bolt or nail, Gr *gomphos*)

Veil universal, viscoso-floccose *Pileus* at length turbinate, glutinous when moist *Stem* central, continuous and homogeneous with the hymenophore, imperfectly floccoso-annulate or cortinate,

annulus fugitive *Gills* decurrent, distant, soft and somewhat branched, edge acute, composed of a mucilaginous membrane which often admits of being detached from the hymenophore and stretched

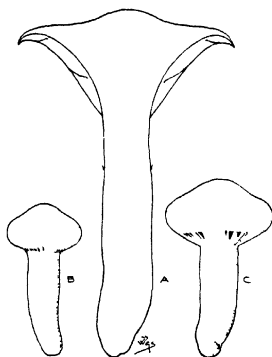


Fig 59—*Gomphidius viscidus* Fr
A, section B young state C half grown example
showing floccose veil One third natural size

out into a continuous membrane, not deliquescent *Spores* large, fusiform, black or nearly so (Fig 59)

The species grow on the ground, chiefly in pine woods, solitary, subpersistent

The species are most nearly allied to *Hysterophorus*, but they differ greatly in the annulate stem and the blackish spores There is also an affinity with *Cortinarius*, as shown by the cortina, but the spores differ greatly in shape and colour Species 1168—1171

1168 *G glutinosus* Fr (from the glutinous pileus) *a b c*

P becoming flat, smooth, purple-umber or umber-crimson, at first paler *St* solid, viscid and zoned with the fugitive V, whitish above, yellowish or brownish below, *Co* white *G* whitish or olive-whitish, then cinereous *Flesh* whitish, greyish or pale rose

Said to be edible Eaten at Hereford Fungus Forays, but not much approved, 1870 Taste watery, mouldy, odour faint Woods, chiefly pine, larch, common July–Nov $4\frac{1}{2} \times 3\frac{3}{4} \times \frac{1}{2}$ in Must not be confounded with 155 *Var roseus* Fr *P* rose colour, sometimes dark crimson red *St* white above, pale rose below

1169 *G viscidus* Fr (from the somewhat viscid pileus) *a b c*

P becoming flat, rich apricot, shaded vermilion, sometimes brick-red, often mottled bright purple *St* solid, orange, pale purplish above *G* olive, then crimson-purple, purplish or

whitish-purple *Flesh* yellowish, often with purple stains, rhubarb-colour at base

Said to be edible, odour not unpleasant Woods, chiefly pine, frequent July-Oct $4\frac{3}{4} \times 4\frac{1}{2} \times 1\frac{1}{2}$ in Var *testaceus* Fr *P* brick red Woods, beech Every intermediate form occurs between this and 1168, including the varieties *roseus* and *testaceus*

1170 **G maculatus** Fr (from the spotted pileus and stem, *maculatus*, spotted) *a*

P becoming flat and depressed, white to brownish-salmon with large umber or blackish spots, marg striate *St* solid, slightly attenuate downwards, yellow or yellowish below, white, grey or purplish in middle, whitish above *G* pale slate, shaded umber *Flesh* reddish

Woods, fir Autumn $2\frac{1}{4} \times 2\frac{1}{2} \times \frac{1}{2}$ in Var *Cookei* Mass *St* whitish above, blackish at base

1171 **G gracilis** B & Br (*gracilis*, slender) *a b c*

P becoming flat and depressed, pale vinous-brown covered with dingy-fuliginous gluten, at length black-spotted and black-bordered with the drying gluten *St* solid, slightly attenuate downwards, white-scaly above, yellow and virgate below, clouded vinous-tan *G* slate-white, white umber or greenish-white

Woods, fir, frequent July-Oct $1\frac{3}{4} \times 2\frac{1}{4} \times \frac{1}{4}$ in Berkeley's illustration, *Outlines*, t 12, fig 7, does not agree with his description Every intermediate form occurs between this and 1170

XLVI PAXILLUS Fr

(From the form, like a small stake or peg, *paxillus*)

Vcil obsolete *Pileus* fleshy, margin at first involute *Stem* central, excentric or obsolete, when present fleshy, continuous and

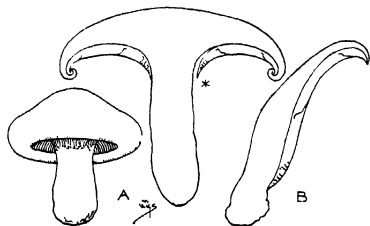


Fig 60—A *Paxillus involutus* Fr, entire and in section gills separating from hymenophore at * B, section of *P panuoides* Fr One third natural size

homogeneous with the hymenophore *Gills* decurrent, often anastomising behind and forming spurious pores as in *Boletus*, readily

separating from the hymenophore owing to the—except in 1185—absence of a trama, usually separated from the flesh of the pileus by a thin differentiated horny or cartilaginous layer *Spores* whitish to ferruginous (Fig 60)

Fleshy, putrescent fungi, some growing on the ground, others on tree-trunks or sawdust Some of the members of the first subgenus are allied to *Tricholoma* and *Clitocybe* amongst the white-spored Agarics, those of the second to *Flammula*, amongst the brown-spored Agarics

The gills of 1181 are sometimes wholly porous, in 1181a always wholly porous, as in *Boletus*

Most of the species are said to be edible Species 1172—1186

SUBGENUS 1 **LEPISTA** *Spores* dull white—reddish- or fuscous-pallid in 1174—faintly ferruginous in 1176 1172—1179

SUBGENUS 2 **TAPINIA** *Pileus* usually more or less excentric sometimes lateral and stemless, at length depressed *Spores* ferruginous 1180—1186

SUBGENUS 1 **LEPISTA**

(From the type, 1174 *P. lepista*)

1172 **P giganteus** Fr (from its great size) *a b c* Tan white

P depressed or infundibuliform, not umbonate, marg sulcate very involute *St* solid, smooth, stained faintly vinous *G* deeply decurrent, very crowded, inclined to branch and anastomose

Odour strong, like 1394 Woods and pastures, uncommon Aug–Nov 1–1½ × 4½ × ½ in Very different from 190, with which it is often confounded

1173 **P Alexandri** Fr (from P Alexander, who gathered the first examples described) *a b*

P plano-depressed, dry, fawn to umber-whitish marg striate, involute *St* colour as *P*, or faintly ochreous *G* sub-decurrent, crowded, yellowish or brownish

Amongst moss, on the ground Sept–Oct 3¼ × 1⅜ × ⅞ in

1174 **P lepista** Fr (from the shape of the pileus when young *lepista*, a pan) *a b c*

P plano-depressed, dry to subviscid, marg involute, undulato-flexuous, rimuloso-squamulose, not striate, whitish or yellowish-white *St* solid, whitish sometimes inclining to fuscous below *G* decurrent, very crowded, whitish or pale yellowish-white

Solitary, sporadic, changeable in habit Odour of rancid meal, or strong and acid Woods, oak, fir, moist places Oct–Nov 5½ × 3¼ × 1 in

1175 **P extenuatus** Fr (from the thin margin of the pileus, *extenuatus*, made thin) *a b*

P campanulato-convex, broadly umbonate or obtuse, tan, clay or yellowish, marg involute, smooth, even or striate *St*

solid, smooth, somewhat tuberous-rooting, colour as P G deeply decurrent, very crowded, white to mouse-colour

Woods, fir, grassy places Oct $4 \times 2\frac{1}{2} \times \frac{3}{4}$ in

- 1176 **P panæolus** Fr (from the change of colour of the flesh to black, Gr *panauiolos*, all variegated) *a b c*

P convexo-plane, depressed, smooth, moist, whitish, marg subinvolute *St* stuffed, attenuate upwards, striato-fibrillose, rufescent or as P, ochreous below G subdecurrent, crowded, becoming watery ferruginous or cinnamon

Subgregarious Woods, fir, mixed Oct–Nov $1\frac{1}{2} \times 1\frac{1}{2} \times \frac{1}{8}$ in Var *spilomaculus* Fr *P* spotted with dots

- 1177 **P orcelloides** Cooke & Mass (from its resemblance to 504, *Chitopilus oralla*) *a b*

P convexo-plane, silky, white, then clouded greyish or livid, marg involute *St* solid, attenuate downwards, elastic, silky-fibrillose, livid-ochreous G adnato decurrent, crowded, whitish to salmon-brown

Woods, amongst grass Sept–Nov $2\frac{1}{2} \times 1\frac{1}{2} \times \frac{3}{16}$ in

- 1178 **P lividus** Cooke (from its livid colour) *a*

P convex, then depressed, dull whitish or livid-ochreous, marg subinvolute *St* stuffed to hollow, attenuate downwards, fibrillose, whitish G subdecurrent, somewhat crowded, white

In small clusters Odour pleasant Woods, fields Oct $2 \times 2\frac{1}{2} \times \frac{3}{8}$ in Allied to 1179

- 1179 **P revolutus** Cooke (from the, at length, slightly revolute margin of the pileus) *a*

P campanulato-obtuse, pale ochreous, mid darker, marg sometimes pale lavender *St* solid, attenuate downwards, whitish or pale lavender G arcuato-decurrent, pallid to clay

Odour of meal Fields Oct $1\frac{1}{2} \times 1\frac{1}{2} \times \frac{3}{8}$ in

SUBGENUS 2 TAPINIA

(From the pileus, at length depressed, Gr *tapinoos*, to depress)

- 1180 **P paradoxus** Berk ex Cooke (from its being a new, unexpected species, *paradoxus*, strange, unexpected) *a b c*

P convex to plane, densely tomentose, deep rufous-umber to yellowish-brown, marg subinvolute *St* solid, attenuate downwards, sometimes rooting, yellow or reddish, or crimson to rose above, and yellow to brownish below G decurrent, distant, veined, yellow to deep yellow, reddish when bruised

Woods, on the ground, on earth inside hollow trees, oak Aug–Nov $4 \times 1\frac{1}{2} \times \frac{5}{8}$ in With the general appearance of a dark pileated 1472

- 1181 **P involutus** Fr (from the involute margin of the pileus) *a b c*

P convexo-plane, then depressed, ochreous-ferruginous, marg very involute *St* solid, slightly enlarged downwards, dull

yellowish, dull purplish below *G* decurrent, branched, sometimes forming elongate *Po* near the *St*, pallid, pale or umber-yellow to ferruginous, changing to vinous when bruised

Said to be edible and highly esteemed in Belgium and Russia, tasteless when raw Eaten at Hereford Fungus Forays, but not much approved, 1870 Woods, by and on stumps, very common June–Nov $7 \times 2\frac{1}{2} \times 1\frac{1}{2}$ in A yellow parasitic mould, *Hypomyces chrysosporus*, frequently grows on the gills Var *excentricus* Mass *St* excentric Var *subinvolutus* W G Sm (*Agaricus subinvolutus* Batsch) margin of *P* less involute than type

1181a. *P. porosus* Berk (from the porous hymenium) *a b*

P fleshy, viscid when moist, reddish-claret or olive-brown, marg thin, even, not involute *St* excentric, tough, equal or attenuate downwards, claret brown, darker below, somewhat reticulate above with the *Po* *G* decurrent, shallow, poriform, yellow to sulphur-green, changing to pale blue and then brownish when bruised, dull green when old *Po* round to elongate, irregular, large to small *Flesh* dull pale vinous-brown, mottled and streaked, darker in stem, changing colour as *St*

Tasteless Odour very strong, unpleasant Moist woods, under firs Autumn $4\frac{3}{8} \times 3\frac{1}{2} \times \frac{1}{2}$ in Not unlike 1181, to which it is closely allied, but the margin is never involute and the pores are different in colour Small forms somewhat resemble 1468

1182 *P. leptopus* Fr (from the thin stem, *Gr leptos*, thin, *pous*, a foot) *a b*

P depressed, excentric downy, then torn-villous scaly, fuscous yellowish to yellow-olive-umber, marg subinvolute *St* solid, attenuate downwards, yellowish *G* deeply decurrent, sometimes poriform at base yellowish to full yellow or shaded olive *Flesh* straw-white to yellow

On the ground, about stumps, fir Au., –Sept $3\frac{1}{2} \times \frac{3}{4} \times \frac{3}{8}$ in

1183 *P. atrotomentosus* Fr (from the black downy pileus *atro*, black, *tomentum*, down) *a b c*

P convexo-plane, then depressed, deep opaque umber or deep orange-umber, somewhat orange-sienna at involute marg *St* solid, equal, somewhat rooting, excentric, rarely lateral, blackish-umber or intense crimson-umber, pale yellowish at apex *G* subdecurrent, branching and somewhat porous at base, yellowish to deep yellow *Flesh* white or sulphur-white in *P*, rose-purple in *St*, mottled dull purplish

Taste insipid, odour when cut rank and strong like 2086 Stumps, pine, on the ground Aug–Nov $5\frac{3}{8} \times 2\frac{1}{2} \times 1\frac{3}{8}$ in

1184 *P. crassus* Fr (from the stem, thick above, *crassus*, thick) *a*

P plane, even, ferruginous, marg subinvolute *St* stuffed, attenuate downwards, excentric, colour as *P* *G* subdecurrent, subdistant, cinnamon

On the ground, woods Nov $3\frac{1}{2} \times 1 \times \frac{1}{2}$ in

1185 *P panuoides* Fr (from its shape, as in genus *Panus*, *Gr eidos*, appearance) *a b c* Dull, opaque, yellow

P conchato-dimidiata, imbricate, marg subinvolute *St* obsolete *G* decurrent to base, crowded, branched and anastomosing, trama well developed, tan sienna or somewhat pale yellow-ochre, sometimes studded with drops

Beech, fir, hawthorn, sawdust, in cellars, on wood, uncommon July-Nov
Diam 4 in *P* sometimes whitish ochre with reddish marg *G* sienna
The resupinate and cup shaped form is *Gomphus pezizoides* Pers

1186 *P Fagi* B & Br (from its habitat, stumps of beech, *fagus*) *a*
P dimidiata, crisped, becoming revolute, pallid *St* obsolete
G decurrent to base, crisped, orange
Gregarious Autumn Diam $3\frac{1}{2}$ in

XLVII HYGROPHORUS Fr

(From the water-bearing character, *Gr huiros*, moist, *phero*, to bear)

Vel universal and viscid or obsolete *Pileus* more or less fleshy, glutinous, viscid or watery, margin slightly incurved *Stem* central, continuous and homogenous with the hymenophore, usually exannulate *Gills* furnished with a subfloccose trama, usually distant and

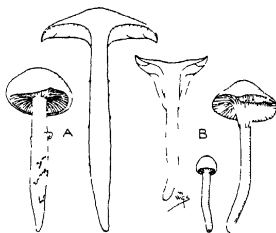


Fig 61 — A *Hygrophorus olivaceoalbus* Fr entire and in section B *H virgineus* Fr entire and in section One third natural size

thick but acute at the edge, not membranous, often branched and veined, the hymenium waxy and at length removable from the trama, which is of the same substance as the pileus *Spores* subglobose or elliptical, smooth, white, pale umber in 1208 (Fig 61)

The species are putrescent, often brilliant in colour as scarlet, orange, sulphur, green and shining-white, they all, except 1215, grow on the ground, and often appear after the first frosts of late autumn. They differ from *Cortinarius*, *Gomphadus* and *Paxillus* in the colour of the spores, from *Lactarius* in being non-milky, from *Puccinula* in not being vesciculososo-rigid, and from *Cantharellus* in the sharp-edged gills. Many have a pleasant taste and are edible

Typical species of the genus are best seen in Subgenus 3,
Hygrocybe Species 1187—1228

SUBGENUS 1 **LIMACIUM** *Pileus* glutinous *Universal veil* viscid, with occasionally a floccose partial veil which is annular or marginal *Stem* clothed with minute scales or rough with dots above *Gills* adnato-decurrent

White or yellowish-white	1187—1190
Reddish	1191—1194
Tawny or light yellow	1195—1198
Olivaceous umber	1199—1202
Fuscos-cinereous or livid	1203—1206

SUBGENUS 2 **CAMAROPHYLLUS** *Veil* none *Pileus* firm, opaque, moist in rainy weather, not viscid, except 1216, 1219, 1220 and 1224, where the pileus is somewhat viscid *Stem* even, smooth or fibrillose, not rough with dots *Gills* distant, arcuate

<i>Gills</i> deeply and at length obconically decurrent	1207—1217
<i>Gills</i> ventricose, sinuato-arcuate or plano-adnate	1218—1224

SUBGENUS 3 **HYGROCYBE** *Veil* none *Pileus* viscid when moist, shining when dry, rarely floccoso-scaly *Stem* hollow, except 1225, 1228, stuffed in 1232, soft, not punctate *Gills* soft Whole fungus thin and watery succulent, fragile, mostly bright coloured and lustrous

<i>Gills</i> decurrent	1225—1234
<i>Gills</i> adnexed, adnate in 1241 and 1243, broadly emarginate in 1244, somewhat separating	1235—1246

SUBGENUS 1 **LIMACIUM**

(From the pileus and stem glutinous with the veil, *limax*, a slug)

- 1187 **H chrysodon** Fr (from the golden, tooth-like scales *Gr chrusos*, gold, *odous*, a tooth) *a b c* White or sulphur white
P convexo-plane or flat, yellow squamulose at mid and marg
St stuffed, equal, colour as *P*, minutely yellow squamulose above, sometimes imperfectly floccoso-annulate *G* decurrent, distant, white with a faintly yellowish edge

Woods, lime, beech, under trees, rare Aug–Nov $2\frac{1}{2} \times 3\frac{1}{2} \times \frac{1}{2}$ in Var *leucodon* Stev, with shining white pubescence

- 1188 **H eburneus** Fr (from its ivory-white colour, *ebur*, ivory) *a b c*
P convexo-plane, flat, repand, marg pubescent, soon naked
St stuffed to hollow, equal or nearly so *G* adnato-decurrent, distant

Said to be edible Odour mild, sweetish, not unpleasant or none Woods, grassy roadsides, pastures, frequent Aug–Oct $2\frac{3}{4} \times 3\frac{1}{2} \times \frac{1}{2}$ in Not unlike 115

- 1189 H Cossus** Fr (from its odour of the goat-moth, *Cossus ligniperda*)
a b c Faintly yellowish-white

P convexo-plane, obtuse, mid slightly ochreous, marg naked
St stuffed, slightly attenuate downwards *G* adnato-decurrent,
 distant

Odour powerful, persistent Woods, oak, frequent Sept-Nov
 $2\frac{1}{2} \times 3\frac{3}{4} \times \frac{3}{8}$ in

- 1189a H melizeus** Fr (a fanciful name to express its beauty, like the melody of a song, Gr *melizo*, to sing) *a* Straw colour

P fleshy, convexo-expanded, depressed, even, viscid, marg thin,
 at first involute *St* stuffed, attenuate downwards, white
 punctato-squamulose above *G* decurrent, thin, distant

Odour pleasant Woods Nov $3\frac{1}{2} \times 4\frac{1}{2} \times \frac{3}{8}$ in

- 1189b H discoxanthus** Rea (from the yellow middle of the pileus, Gr *diskos*, a disc, *xanthos*, yellow) *a*

P convex, then expanded and depressed, viscid, white then yellowish, deeper coloured at mid, marg becoming brownish with age *St* solid, attenuate downwards, often curved, viscid, white, soon becoming reddish-brown *G* somewhat distant, decurrent, veined at base, exceeding marg of *P*, white, then yellowish to reddish-brown *Flesh* white, becoming reddish in *St*

Odour pleasant of anise Amongst grass Oct $2 \times 1\frac{3}{8} \times \frac{1}{4}$ in

- 1190 H penarius** Fr (from its edible qualities, *penus*, provisions)
a b I tan-whitish

P convexo-expanded, umbonate obtuse, then flat, sometimes clouded fawn-vinous, mid palest sienna or ochre *St* solid, attenuate downwards, fusiform *G* adnato-decurrent, distant, thick, veined

Taste sweet, odour pleasant Woods, mixed Oct $3\frac{3}{4} \times 3\frac{1}{2} \times \frac{3}{4}$ in

- 1191 H pulverulentus** B & Br (from the powdered stem, *pulvis*, dust) *a b*

P pulvinate, white, marg tomentose, sometimes rose- or pale rufous-mealy *St* stuffed, attenuate downwards, fusiform, wholly powdered with rose, rose-sienna or pale rufous meal *G* decurrent, thick, whitish, edge obtuse

Amongst pine leaves Nov-Dec $\frac{3}{4} \times 1\frac{1}{8} \times \frac{1}{8}$ in

- 1192 H erubescens** Fr (from becoming red, *erubesco*) *a b c*

P gibbous, convexo-flat, adpressedly dotted-squamulose, white or pale buff, becoming red, rose-salmon or vinous-crimson-brown, mid sienna *St* solid, equal or attenuate downwards, red-fibrillose, red or pale dull brownish-purple, pale above *G* decurrent, distant, narrow, white, red-spotted or rose, or sienna-shaded *Flesh* white or pale rose

In troops, sometimes in large circles Woods, pine Oct $4 \times 3\frac{1}{2} \times \frac{3}{4}$ in
 Perhaps allied to 88

- 1193 H pudorinus** Fr (from its flesh-colour, *pudorinus*, blushing) *a b*
P convex, flat, salmon-rose, mid darker *St* solid, attenuate upwards or subventricose, white or salmon-rose above, paler or faintly ochreous below *G* decurrent, thick, distant, white or pale flesh-colour, edge sometimes salmon
 Odour none Woods, fir Oct $4 \times 3 \times \frac{1}{8}$ in
- 1194 H glutinifer** Fr (from its gluten-bearing habit, *fero*, to carry) *a b c*
P convex, obtuse, rufescent, mid wrinkled-dotted, buff, deep buff or umber, marg whitish *St* stuffed, ventricose downwards, white above, gradually sienna-umber below *G* decurrent, white or faintest olive-white *Flesh* white
 Gregarious Taste mild Woods, grassy places Sept-Oct $4\frac{3}{4} \times 4 \times \frac{1}{8}$ in
 Must not be confused with 1201
- 1195 H arbustivus** Fr (from its habitat, plantations, *arbustum*) *a b*
P convexo-plane, subrepand, innato-fibrillose, smooth, buff-tan, fawn-tan or sienna, marg paler *St* solid to stuffed, equal, white above, tan at base *G* adnate, subdecurrent, distant, white
 Edible Taste and odour pleasant Woods, birch, fir Sept-Dec $2\frac{1}{2} \times 2\frac{1}{2} \times \frac{1}{4}$ in
- 1196 H aureus** Arrh ex Fr (from the golden-yellow pileus, *aureus*, golden) *a*
P convex, flat, even *St* stuffed, equal, pale sulphur above, yellow below, sometimes annulate with the glutinous reddish V
G decurrent, distant, thin, whitish to deep sulphur
 Woods Nov $1\frac{1}{2} \times 2 \times \frac{1}{4}$ in
- 1197 H discoideus** Fr (from the disc-shaped pileus) *a b c*
P convex, obtuse, flat, even, smooth, ochreous-white, mid pale reddish-brown, sometimes dark *St* stuffed, slightly attenuate upwards, whitish, faintly ochreous or brownish below *G* decurrent, becoming distant, faint yellowish-tan
 Gregarious, forming rings, solitary Woods, pine, grassy places Oct-Nov $2\frac{1}{2} \times 2\frac{1}{2} \times \frac{1}{4}$ in
- 1198 H aromaticus** Berk (from its odour of cinnamon) *a b*
P convexo-plane, flat, cuticle netted-reticulate and separable, cinnamon *St* stuffed to hollow, rosy-cinnamon *G* rounded-adnate to decurrent, separating from hymenophore, salmon
 Taste acid, odour spicy Autumn $3\frac{1}{8} \times 2\frac{1}{8} \times \frac{1}{8}$ in
- 1199 H limacinus** Fr (from its slime, *limax*, a slug) *a b*
P convexo-plane, obtuse, umber, fuliginous or olive, marg paler *St* solid, equal, fibrillose-striate, white or sulphur-green-white, somewhat sienna below *G* adnato-decurrent, sub-distant, thin, white or pale olive-cinereous
 Sometimes caespitose Woods, amongst damp leaves Oct-Nov $3\frac{1}{2} \times 3 \times \frac{1}{4}$ in

- 1200 **H olivaceoalbus** Fr (from the olivaceous pileus and white gills) *a b c*

P conical, convex, subumbonate, even, smooth *St* solid, attenuate below, white above, spotted with milky drops, spotted squamulose below with fuscous V, and more or less annulate *G* adnato-decurrent, distant, veined, white or sulphur-greenish-white

Taste insipid, odour none Woods, woodland pastures, chiefly under pine, oak Aug.-Nov $3\frac{1}{2} \times 4\frac{1}{2} \times \frac{1}{2}$ in

- 1201 **H hypothejus** Fr (from the sulphur-colour under the gluten, *Gr hypo*, under, *theon*, sulphur) *a b c*

P convex, flat, depressed, gluten leaf-green or olivaceous, umber or deep madder-brown *St* stuffed to hollow, equal or slightly attenuate downwards, at first yellow-greenish, then yellow, sometimes flesh-colour, fugaciously subannulate *G* decurrent, distant, white to yellow, sometimes flesh-colour *Flesh* pale sulphur-yellow

Woods, pine, hurch, amongst heather, etc., frequent Sept.-Dec $3 \times 3 \times \frac{1}{2}$ in
Must not be confused with 1194

- 1202 **H ceracinus** Berk (from its odour, like cherry-laurel, *Prunus Laurocerasus*) *a b c*

P convexo-expanded, obtuse or subumbonate, umber to grey, marg minutely tomentose *St* solid, equal or attenuate downwards, white *G* adnato-decurrent, very distant, branched, white

Somewhat gregarious Woods, fir Sept.-Oct $2\frac{3}{8} \times 2\frac{3}{4} \times \frac{3}{8}$ in

- 1203 **H fuscoalbus** Fr (from the brown pileus and white gills) *a b*

P convexo-plane, obtuse, becoming cinereous, marg white-floccose *St* solid, equal, white above, tan below, sometimes floccoso-annulate *G* decurrent, somewhat thick

Woods, mixed, amongst moss Sept $1\frac{3}{8} \times 2\frac{1}{4} \times \frac{1}{4}$ in

- 1204 **H agathosmus** Fr (from the pleasant odour, *Gr agathos*, good, *osme*, scent) *a b c*

P convexo-plane, gibbous, livid grey or dull pale yellowish-olive, mid usually darker *St* solid to hollow, equal, somewhat fibrilloso-striate, white above, as *P* below *G* decurrent, distant, white

Odour sweet of anise, or of fruit with spirit Woods, fir Sept.-Nov $3\frac{1}{4} \times 2\frac{1}{8} \times \frac{3}{8}$ in

- 1205 **H mesotephros** B & Br (from the brown-grey middle of the pileus, *Gr mesos*, middle, *tephros*, ash-coloured) *a b c*

P hemispherical to flat, white, mid pale sienna or buff, marg striate *St* stuffed, attenuate downwards, white, faint sienna or buff below *G* decurrent, subdistant, white

Woods, damp places, rare Oct $1\frac{3}{4} \times 2\frac{1}{8} \times \frac{1}{2}$ in

- 1206 H lividoalbus** Fr (from the livid pileus and white gills) *a b c*
P flat, buff-white or white, with white-umber marg *St* stuffed,
 equal, somewhat even, glabrous, white *G* decurrent, sub-
 distant, white
 Woods Oct–Nov $2\frac{3}{4} \times 3\frac{3}{4} \times \frac{1}{4}$ in

SUBGENUS 2 CAMAROPHYLLUS

(From the arcuate gills, Gr *kamera*, a vault, *phyllon*, a leaf)

- 1207 H caprinus** Fr (from the fibrillose stem, as if covered with goat's hair, *capra*, a goat) *a c*
P conical, umbonate, convex, then flat or depressed, streaked-fibrillose, blackish, cinereous-fuliginous or umber *St* solid, or hollow above, equal, pale umber- or grey-white *G* very distant, white, then glaucous
 Woods, pastures, under firs Oct $3\frac{1}{2} \times 4 \times \frac{1}{2}$ in
- 1208 H leporinus** Fr (from the colour, like a hare, *lepus*) *a c*
P convex, gibbous, fibrilloso-floccose, ochre-sienna or umber *St* solid, rigid, subfusiform, fibrillose, pallid above, brownish-tawny below *G* pale yellowish *Flesh* brownish above and below
 Taste and odour none Woods, downs rare Sept–Oct $2\frac{1}{2} \times 2\frac{1}{2} \times \frac{1}{8}$ in
- 1209 H nemoreus** Fr (from the habitat, *nemus*, a grove) *a b*
P convex-expanded, gibbous, then depressed, orange, or yellowish-white-sienna *St* stuffed, squamulose, fibroso-striate, slightly attenuate downwards, pale biscuit-colour *G* thick, whitish to orange
 Edible Taste mild Woods, pastures Oct–Dec $2\frac{1}{2} \times 1\frac{1}{2} \times \frac{1}{2}$ in
- 1210 H pratensis** Fr (from the habitat, *pratium*, a meadow) *a b c*
 Pale buff or yellowish
P convex, obtuse or umbonate, then repand, even, smooth *St* stuffed, attenuate downwards *G* very distant, thick, veined
 Edible, but with little flavour Pastures, roadsides, downs, common Aug.–Nov $3\frac{3}{4} \times 2\frac{1}{2} \times \frac{1}{2}$ in Sometimes wholly white Var *umbrinus* W G Sm *P* olive slate or whitish umber Var *cinereus* Fr *P* thin, cinereous, margin striate Var *pallidus* Cooke *P* infundibuliform pallid Var *Meisneriensis* Fr *P* skin easily separable Tasteless or slightly insipid
- 1210a H Karstenii** Sacc & Cub (after P A Karsten) *a*
P fleshy, convexo-plane, compact at mid, glabrous, even, whitish *St* solid, attenuate downwards, wavy, white *G* deeply decurrent, distant, yellow
 Woods Nov $3\frac{1}{2} \times 5\frac{1}{2} \times \frac{3}{4}$ in Distinguished from 1210 by its chalk white downward tapering stem
- 1211 H foetens** Phill (from its nauseous-fetid odour) *a b c*
P convex, plane, smooth, then squamulose, sepia *St* stuffed, attenuate downwards, paler than *P* *G* somewhat thick, vinous-brown-tan, somewhat slate, glaucous-pruinose
 Odour cadaverous, ordure like, fetid nauseous Grassy places Oct–Nov $1 \times 1\frac{1}{2} \times \frac{1}{2}$ in

1212 H virgineus Fr (from the pure white colour) *a b c*

P convex, obtuse, flat, depressed, at length cracked and floccose
St stuffed, attenuate downwards *G* very decurrent, somewhat thick

Fidible Pastures, woods, roadsides, downs Aug-Dec $1\frac{3}{4} \times 1\frac{3}{4} \times \frac{1}{2}$ in
 Very variable in size Sometimes clouded with beautiful shades of clear lilac, caused by the growth of the mould named *Verticillium Marquandii*
 Must not be confounded with the white form of 1210 or with 1214 Var
roseipes Mass ex Cooke *St* rose colour or salmon within and without, sometimes strigose at base

1213 H ventricosus B & Br (from the ventricose stem) *a b*
 White

P convex, unequal, lobed *St* solid or partially hollow *G* narrow, forked

Amongst grass Sept $1\frac{1}{2} \times 2\frac{1}{2} \times \frac{1}{2}$ in Often tinged with red from the growth of a parasitic *Fusisporium* which may be the cause of the hypertrophy
 Greatly resembles one form of 123

1214 H niveus Fr (from its snow-white colour, *niveus*, snow-white) *a b c*

P convex, flat, umbilicate, marg striate *St* fistulose, equal or slightly attenuate downwards *G* thin

Pastures, roadsides, parks, downs, etc, common Sept-Nov $\frac{3}{8} \times 2 \times \frac{1}{8}$ in
 Much like 207 in appearance Sometimes minute Sometimes stained lilac, as in 1212

1215 H Wynnii B & Br (after Mrs Lloyd Wynn) *a b c* Semi-transparent lemon, faintly greenish, sometimes tan or white

P convex, umbilicate, or subinfrundibuliform, marg striate
St stuffed, equal, or attenuate downwards *G* narrow, thin

On chips, twigs, old stumps, etc Oct $1 \times 1\frac{3}{8} \times \frac{1}{8}$ in The habitat points to *Micena* or *Omphalia*

1216 H russocoriaceus Berk & Mill (from the odour of Russian leather *coriaceus*, leathery) *a b c* White

P convex, expanded, obtuse, slightly viscid *St* solid, attenuate downwards, smooth *G* thick, distant, few

Odour varying of *Potentilla atrosanguinea* Pastures, rare Sept-Dec $1 \times 1\frac{1}{2} \times \frac{3}{8}$ in Odour sometimes persistent in dried examples for more than twenty years Must not be confounded with 207

1217 H micaceus B & Br (from the shining mica-like particles on the pileus) *a c*

P hemispherical, flat, slightly depressed, wrinkled, light yellow to cinereous *St* solid, equal, colour as *P*, then brown below
G pallid umber to clay-sienna

Clayey soil Oct $\frac{5}{8} \times \frac{5}{8} \times \frac{1}{4}$ in Whole plant turns brown in drying

1218 H fornicatus Fr (from the pileus, at first convex *fornicatus*, arched) *a b c*

P becoming expanded and obsoletely broadly umbonate, viscid, white or pale livid, mid brown *St* solid, hollow or stuffed,

equal, smooth or subscaly, whitish to greyish *G* adnexed or sinuato-adnexed, ventricose, distant, white

Pastures Oct–Nov $3 \times 2\frac{1}{2} \times \frac{3}{8}$ in Var *chivalis* Fr, white *P* thin, fragile, marg incurved, striate, not viscid *St* short, fragile, attenuate downwards *G* rather thick

1219 *H. distans* Berk (from the very distant gills) *a b*

P convex, plane, subdepressed or umbilicate, viscid, white or faintly brownish *St* solid, attenuate downwards, white, cinereous or pale ochre-tan below *G* plano-decurrent, few

Sometimes fragrant of essence of almonds, pleasant, sweet Woods, rare Oct $2 \times 1\frac{1}{2} \times \frac{1}{2}$ in

1220 *H. Clarkii* B & B (after J Aubrey Clark) *a b*

P obtuse, convexo-plane, viscid, opaque umber or livid-cinereous, marg even, white *St* solid, stuffed or hollow, equal or attenuate downwards, viscid and white-squamulose above, pale umber-scaly below *G* adnate, distant, broad, thick, veined, ivory-white

Woods, pastures Sept–Oct $3\frac{3}{4} \times 2\frac{1}{2} \times 1\frac{1}{2}$ in *H. latitabundus* Britz is this species, as is Kalchb *Hymen Hung* t 24, f 1, incorrectly named *H. limacinus* Fr

1221 *H. metapodius* Fr (from the stem, sometimes thick above and attenuate below *Gr muta*, upside down, *pous*, a foot) *a b c*

P convex, plane, obtuse, cinereous-fuscous or pale rose-shaded sepia *St* stuffed, unequal, smooth, cinereous *G* adnate, broadly emarginate, distant, veined, grey-white *Flesh* pallid-grey, reddish when broken

Sometimes in clusters and deformed Taste mild, insipid to sweet odour of new meal Old mossy pastures Oct–Jan $2\frac{1}{2} \times 1\frac{1}{2} \times \frac{1}{2}$ in At maturity becoming black or deep sepia within and without Analogous with 1306 and 1307

1222 *H. ovinus* Fr (from the woolly pileus *ovis*, a sheep) *a b c*

P campanulate, expanded, subumbonate, revolute, incised, subviscid, then obscurely squamulose, dull-sienna or yellow, mid sienna-slate, marg tan *St* somewhat stuffed, almost equal, smooth, tan-grey *G* emarginate or arcuato-adnate, veined, whitish-grey then rufescent

Odour of new meal Woods, pastures, mossy places, uncommon Sept–Dec $2\frac{1}{2} \times 2\frac{1}{2} \times \frac{1}{2}$ in Sometimes changing to black

1223 *H. subradiatus* Fr (from the radiato-striate pileus) *a b*

P convex, expanded, subumbonate, pale yellowish, mid sienna and umber, marg sienna, sometimes lilac *St* stuffed to hollow, equal, smooth, often twisted, whitish or pale lilac above, tan-brownish below *G* decurrent, somewhat thin, distant, veined, white to pale yellowish

Old pastures, heathy ground Sept–Oct $3\frac{1}{2} \times 2 \times \frac{1}{2}$ in Var *lacmus* Fr wholly or almost wholly shining lavender

1224 *H. irrigatus* Fr (from its watery texture, *irrigo*, to wet) *a*

P convex, obtuse, flat, smooth, viscid, pale fawn, mid brown,

marg striate *St* hollow, equal, smooth, very viscid, colour as *P*, but with a pale yellowish tinge *G* adnate with a tooth, subdistant, somewhat thick, veined, white, grey, or tan
Woods, fir, grassy places Oct - Nov $2 \times 2\frac{3}{4} \times \frac{1}{4}$ in

SUBGENUS 3 HYGROCYPE

(From the moist pileus, *Gr hugros*, moist, *kube*, a head)

- 1225 **H Colemannianus** Blox ex Berk (after W H Coleman) *a b c*
P convexo-expanded, umbonate, dark reddish-umber, marg striate, paler *St* solid, nearly equal, somewhat silky, salmon-whitish, shaded pale brownish *G* distant, veined, paler than *P* to whitish

Grassy places, lawns Oct - Nov $1\frac{1}{2} \times 1\frac{3}{4} \times \frac{1}{4}$ in

- 1226 **H sciophanus** Fr (from its delicacy as compared with 1210, *Gr skia*, a shadow, *phaino*, to appear) *a*

P hemispherical, expanded, obtuse, deep tawny, brown, red or vermilion to white, marg striate, paler *St* equal, smooth, tawny-yellowish to white *G* adnate to plano-decurrent, ventricose, distant, colour as *P*, or inclining to rose or yellow

Densely gregarious Grassy and mossy places Autumn $1\frac{1}{2} \times 1\frac{3}{4} \times \frac{1}{8}$ in

- 1227 **H lætus** Fr (from the bright colour, *lætus*, pleasing) *a b c*

P convex, flat, slightly depressed, slippery-smooth, deep yellow, tawny, vermilion-orange or salmon, marg striate *St* fistulose, equal, slippery-smooth, tawny or yellow *G* plano-decurrent, distant, thin, veined, flesh-colour, whitish, fuliginous or shaded brownish *Flesh* in *P*, yellow and orange, in *St*, tan-yellow

In troops Pastures, downs, frequent Oct - Nov $1\frac{1}{2} \times 2\frac{1}{4} \times \frac{1}{8}$ in

- 1228 **H Houghtonii** B & Br (after the Rev Wm Houghton) *a b c*

P convex, flat, umbilicate, glutinous, rugose to mid, flesh-colour with sienna marg, pale vermilion shaded darker or wholly cinnabar, sometimes very pale *St* fistulose, equal, very glutinous, pale salmon above, pale or dark yellow below, sometimes wholly cinnamon *G* plano-decurrent, thick, pale yellowish or salmon *Flesh* in *P* flesh-colour or orange, in *St* salmon above, tan below

Tasteless, odour strong, foxy Amongst grass Oct $1\frac{3}{8} \times 2\frac{3}{8} \times \frac{1}{8}$ in

- 1229 **H vitellinus** Fr (from the egg-yellow colour, within and without, *vitellus*, yolk of egg) *a b*

P convexo-expanded, smooth, varying lemon-yellow with a suggestion of olive, becoming white, marg plicato-striate *St* equal, even, smooth, becoming white *G* decurrent, subdistant

Woods, pastures Oct - Dec $1 \times 2\frac{1}{2} \times \frac{1}{8}$ in

- 1230 **H ceraceus** Fr (from the colour, like yellow wax *cera*, wax) *a b c*

P convexo-plane, marg striate, not becoming white, mid sometimes vermilion *St* equal to unequal, even, smooth *G* adnato-decurrent

In troops Woods, pastures, common Sept - Dec $1\frac{3}{8} \times 3\frac{1}{4} \times \frac{1}{8}$ in

1231 H coccineus Fr (from its scarlet colour, *coccineus*) *a b c*

P hemispherical, convex plane, smooth, not floccoso-scaly, crimson-scarlet or yellow to orange, clouded and blotted carnine, becoming whitish or yellowish. *St* even not slippery-smooth, unequal, scarlet above, yellow below, sometimes rose or purplish, becoming whitish or yellowish. *G* adnate, sometimes with a decurrent tooth, distant, veined, yellow below, purplish above, edge glaucous. *Flesh* crimson, orange or sulphur, external layer of *St* orange-vermilion.

Pastures, very common. June–Nov. $2\frac{3}{4} \times 2\frac{1}{2} \times \frac{1}{2}$ in.

1232 H miniatus Fr (from its colour, *minium*, vermilion) *a b c*

P convex, umbilicate, even, smooth then squamulose, becoming rose or orange. *St* stuffed, slightly attenuate downwards, smooth, shining. *G* adnate or slightly decurrent distant, rather thick, yellow or vermilion-shaded. *Flesh* of *P* and external layer of *St* scarlet.

Open and boggy places, woods, moist banks, pastures. June–Oct. $1 \times 2\frac{1}{2} \times \frac{1}{2}$ in. Sometimes very small. Does not adhere to paper in drying.

1233 H turundus Fr (from the flocculose pileus *turunda*, lint) *a b c*

P convex, plane, depressed or umbilicate, yellow to orange, mid vermilion, sq cinereous-fuscous. marg sometimes crenate. *St* equal, even, lustrous, tawny reddish or orange above, sulphur below, base white. *G* slightly to deeply decurrent, white to orange.

Bogs amongst *Hydrocotyle vulgaris*, peaty soil, grassy places. July–Oct. $1\frac{1}{2} \times 2\frac{1}{2} \times \frac{3}{8}$ in. Adheres to paper in drying. Var *molis* B & Br. *P* golden yellow squamulose.

1234 H mucronellus Fr (from the shape of the pileus, acutely conical when young *mucro*, a sharp point) *a*

P becoming campanulate and repand umbonate scarlet, bright red, orange or yellow then hoary. marg striate when moist. *St* equal, even, smooth, yellow or scarlet white below. *G* subdecurrent, yellow, orange above.

Fields. Dec. $\frac{3}{4} \times 1\frac{1}{2} \times \frac{1}{4}$ in.

1235 H puniceus Fr (from the colour *punicus*, blood red) *a b c*

P convex, obtuse, expanded, subumbonate, scarlet crimson, sometimes clouded orange, sometimes orange-brown. *St* equal or ventricose, striate, colour as *P*, white, yellowish or sulphur at base. *G* ventricose, thick, distant, white-yellow, often reddish above. *Flesh* deep orange and sulphur in *P*, sulphur in *St*.

Pastures, downs, mossy places, sometimes woods. frequent. June–Nov. $4\frac{1}{2} \times 5 \times \frac{3}{8}$ in.

1236 H obrusseus Fr (from the golden colours, *obrusa*, the assaying of gold by fire) *a b c*

P campanulate, expanded, obtuse or umbonate, golden sulphur-yellow or golden to orange, mid somewhat vermilion. *St*

compressed, unequal, hollow, smooth, even, light or dark sulphur, base tawny or sulphur-white *G* ventricose, distant, white to sulphur and yellow-orange

Woods, grassy places Aug-Oct $2\frac{1}{2} \times 4\frac{1}{2} \times \frac{3}{8}$ in

- 1237 *H intermedius* Pass (from its resemblance to adjoining species) *a*

P convex, obtuse, flat, fibrilloso-silky, golden-yellow becoming cinereous, mid orange *St* compressed, fibrilloso-striate, sulphur to orange *G* ventricose, distant, whitish then yellowish

Odour of meal Roadsides, grassy places, damp ground Autumn
 $2\frac{1}{2} \times 2\frac{1}{2} \times \frac{3}{8}$ in Like 1236, but becoming grey

- 1238 *H conicus* Fr (from the conical pileus) *a b c*

P often acute, then expanded and cracked, smooth, blood-scarlet, orange, sulphur-greenish, sulphur or smoky light yellow *St* equal, fibroso-striate, twisted, sulphur or yellow, reddish at base *G* ventricose, thin, subcrowded, white, yellowish or sulphur •

Pastures, downs, roadsides, etc, common July-Nov $2\frac{1}{2} \times 3\frac{1}{2} \times \frac{3}{8}$ in
Usually, but not invariably, becoming wholly jet black at maturity

- 1239 *H calyptræformis* B & Br (from the pointed hood-shaped pileus, *calyptra*, a hood) *a b c*

P acutely conical, expanded, repand, splitting, minutely innato-fibrillose, salmon-rose, purplish-rose or white, mid ochreous or salmon *St* somewhat ventricose, smooth, substrate, white *G* ventricose, rose to pallid, or as *P*

Said to be edible Pastures, lawns, etc uncommon July-Oct
 $3 \times 4\frac{1}{2} \times \frac{3}{8}$ in Var *minus* Cooke, wholly white

- 1240 *H chlorophanus* Fr (from the pale yellow colour, Gr *chloros*, greenish-yellow, *phaino* to appear) *a b c*

P hemispherical, expanded, obtuse, plane, smooth, cracked, viscid, sulphur, yellow, orange or scarlet mid sometimes vermilion marg striate *St* equal, viscid when moist, rich light yellow *G* emarginato-adnixed, ventricose, thin, distant, yellow *Flush* yellowish

Woods, grassy and mossy places, common July-Oct $1\frac{1}{2} \times 3\frac{1}{2} \times \frac{1}{4}$ in

- 1241 *H psittacinus* Fr (from the yellow or red and green colours, *psittacus*, the ringed green parrot) *a b c*

P campanulate, expanded, umbonate, yellow-reddish or whitish, smeared with green gluten *St* equal, even, colour as *P* *G* adnate or with a decurrent tooth, ventricose, thick, sub-distant, yellow, green above

Pastures, downs, roadsides, etc, common Aug-Dec $2\frac{1}{2} \times 2\frac{1}{2} \times \frac{1}{4}$ in
When young wholly green from the gluten

- 1242 H spadiceus** Fr (from the brown pileus, *spadiceus*, date-brown) *a*

P conical, subacute, campanulate, fibrillose, virgate, covered with olive-bay gluten *St* equal, dry, fibrillose, tawny or yellow, white below *G* ventricose, distant, lemon or clear yellow

Mossy and grassy places, on the ground July $2\frac{3}{8} \times 2\frac{1}{2} \times \frac{1}{8}$ in Not turning black

- 1243 H unguinosus** Fr (from the glutinous pileus and stem, *unguinus*, oily) *a b*

P campanulato-convex, obtuse, sepia, umber, fuliginous or yellowish-brown *St* equal or slightly attenuate above and below, colour as *P* *G* adnate with a tooth, ventricose, white

Taste and odour none Woods, pastures, moist places, frequent Aug-Oct $1\frac{1}{8} \times 3\frac{3}{8} \times \frac{1}{4}$ in

- 1244 H nitratus** Fr (from the nitrous odour) *a b c*

P convex, obtuse or depressed, at first viscid, then flocculoso-squamulose and rimosely incised fuscous-cinereous, blotted, becoming pale, or deep umber with whitish marg *St* equal, smooth, lustrous, grey-whitish *G* broadly emarginate, distant, veined, whitish to glaucous

Odour very strong and disagreeable, like compounds of nitrogen and oxygen Woods, pastures, uncommon Aug-Nov $1\frac{1}{8} \times 2\frac{3}{4} \times \frac{1}{4}$ in Must not be confounded with 111 There is a form larger than type Var *glaucinitens* Fr, rigid *P* dark olive or sooty, becoming pale *G* becoming glaucous Persoon and others, including myself, regard the variety as a distinct species Berkeley, I believe, looked upon it as a *Tricholoma* near 111

XLVIII LACTARIUS Fr

(From the milky juice *lac*, m lk)

Hymenophore confluent and homogeneous with the stem *Lul* more or less obsolete, present in the ragged-appendiculate or pubescent margin of the pileus in some species and in the gluten of others *Pileus* fleshy, somewhat rigid, the texture floccose or vesiculose, not fibrous, often zoned, margin at first involute, milky *Stem* usually central, not corticate, exannulate, milky *Gills* adnato-decurrent, adnate in 1256, 1264, 1270, 1290 and 1302, often branched, unequal, membranous-waxy, subrigid, edge acute, trama vesiculose, milky *Spores* subglobose, minutely echinulate, white, rarely yellowish (Fig 62)

Every part of the plant contains numerous anastomosing lactiferous cells filled with densely granular *latex* or milk which is usually white, but in some instances the colour changes on exposure

to the air, in a few cases the milk is coloured before its escape from the cells, it varies in taste from mild to intensely acrid, and is of a resinous nature

The species, except 1305, grow on the ground The nearest allies

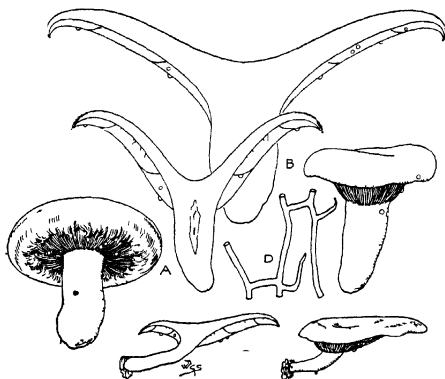


Fig 62 —A *Lactarius torminosus* Fr B *L. piperatus* Fr C *L. obliquus* Fr E entire and in section One third natural size D Lactiferous tubes of *L. suavis* Fr X 100

are found in *Russula*, which has no latex Some are edible, others are poisonous

The *Lactarii* of France and Italy are popularly termed 'cows' or 'goats', the acrid species are called "*peperoni*" and "*porre blanc*"

The sclerotia and perfect plants of 248 sometimes grow from the gills of *Lactarii* *Sphaeronema vitreum* (*Sphaeropsidæ*) frequently grows on the *Lactarii* and *Russulæ* The mould *Penicillium macrosporum* occurs on *Lactarius*

Species 1245—1305

PIPERITES Stem central Gills not changing colour, not pruinose
Milk white, usually acrid

a *Tricholomoidæ* Pileus viscid when moist, margin at first involute and tomentose 1245—1253

b *Limacina* Pileus viscid when moist, pelliculose, margin usually naked 1254—1261

c *Piperata* Pileus without a pellicle, dry, usually not shining 1262—1274

DAPETES Stem central Gills naked Milk from the first deeply coloured 1275, 1276

RUSSULARIS *Stem* central *Gills* pallid, then changing colour to darker, glancing when turned to the light, at length white pruinose Milk at first white, mild or from mild turning acid

Pileus at first viscid 1277—1283

Pileus not lustrous, squamulose, villous or pruinose

1284—1294

Pileus lustrous, smooth

1295—1304

PLEUROPODÆ *Stem* excentric or lateral Growing on trunks 1305

PIPERITES

a Tricholomoides

1245 L. scrobiculatus Fr (from the pitted stem *scrobis*, a trench)
a b c

P convex, then infundibuliform, villous-downy marg at first appendiculate, yellowish or buff *St* stuffed to hollow, equal, light yellowish or white above, tan below *G* thin, crowded, whitish to yellowish *Mill* white, then sulphur-yellowish

Taste very acid odour not unpleasant Woods, on the ground, damp places Sept—Oct $9 \times 2\frac{1}{2} \times 1\frac{1}{2}$ in *Pileus* sometimes 12 in in diam

1246 L. intermedius B & Br (from its position between 1245, 1247 and 1248) *a b*

P convex, then infundibuliform, smooth, ochreous or brownish-yellow, somewhat zoned marg at first ragged-tomentose *St* solid to hollow, equal, pitted as in 1245, yellowish *G* whitish *Flesh* white then pale sulphur *Mill* white then yellow-white

Somewhat acid Woods $3\frac{3}{4} \times 1\frac{1}{2} \times \frac{1}{2}$ in Perhaps the same as 1248

1247 L. torminosus Fr (from its painful acidity *termina*, gripes)
a b c

P convex, then infundibuliform, becoming even, somewhat zoned, pallid flesh-colour, marg ragged-fibrillose, white *St* stuffed to hollow, equal or attenuate downwards, even or obsoletely pitted, white, palest rose above, ochre or tan below *G* very thin, crowded, paler than *P* or tan *Mill* white

Eaten with oil and vinegar in Russia after being preserved in salt Very acid odour none Mixed woods on the ground, fields, amongst grass, heather, etc., common Aug—Nov $5\frac{1}{2} \times 1\frac{1}{2} \times \frac{1}{2}$ in Often confounded with 1276 *Hypomyces torminosus*, a parasitic white mould, changing to yellow and dark brown is frequent on the gills

1248 L. cilicoides Fr (from the tomentose pileus Gr *lilikon*, goat's-hair cloth, *idos*, appearance) *a b c*

P convex, then infundibuliform, wholly tomentose, flesh colour to yellowish or fuscous, marg fibrillose-woolly *St* solid to hollow, equal or attenuate downwards, even, pallid *G* crowded, branched, white to yellowish *Flesh* yellowish-white *Milk* white to yellowish-white

Woods, pine, on the ground, frequent Aug—Nov $6\frac{1}{2} \times 2\frac{1}{2} \times 1\frac{1}{2}$ in Intermediate between 1247 and 1250

- 1249 L lateritioroseus** Karst (from the colour, *lateritius*, brick-red, *roseus*, rose) *a*

P convex, then subinfundibuliform or umbilicate, wavy, usually zoneless, sometimes flesh-colour, becoming pale or lavender-salmon, mid granuloso-squamulose. *St* stuffed to hollow, unequal, slightly flocculose, colour as *P* or paler. *G* subdistant, furcate, veined, colour as *St*, becoming yellowish. *Milk* white.

Acrid Woods Autumn $3\frac{1}{2} \times 2 \times \frac{3}{4}$ in

- 1250 L turpis** Fr (from its ugly appearance, *turpis*, base) *a b c*

P convex, then depressed, rigid, usually zoneless, umber or olivaceous. *St* solid to hollow, equal or attenuate downwards (sometimes upwards), pallid or dark olivaceous or shaded pale slate. *G* thin, crowded, furcate, white straw-colour or tan. *Flesh* white or shaded pale slate. *Milk* white.

Poisonous (regarious Woods fir, mixed roadsides, etc, common Sept-Nov $8 \times 2\frac{1}{2} \times 1\frac{1}{2}$ in Habit of 1181 Var *plumbeus* Cooke *P* blackish brown

- 1251 L controversus** Fr (from the pileus, at first convex then infundibuliform) *a b c*

P convex, then infundibuliform, rigid, flocculose to smooth, white, spotted and zoned blood red, varying flesh-colour. *St* solid, equal, sometimes excentric, viscid, white or spotted as *P*. *G* thin, very crowded, branched, pallid, white-flesh-colour. *Milk* white.

Taste very acrid and pungent odour weak, pleasant Woods, pastures, under poplars, chestnuts, uncommon Aug-Nov $8 \times 3\frac{1}{2} \times 1\frac{1}{2}$ in Said by Dr Padham to be eaten at Lucca under the name of "Lucchese Goat"

- 1252 L pubescens** Fr (from the pubescent margin of the pileus) *a b*

P convex, then broadly infundibuliform, zoneless even, dry, shining, whitish to flesh-colour, rose, ochreous or faint brown. *St* stuffed, attenuate downwards, even, colour as *P*. *G* crowded, pale flesh-colour or yellowish to salmon. *Milk* white.

Taste very acrid, odour none or pungent Pastures, grassy places, amongst pebbles Sept-Oct $4 \times 1\frac{1}{8} \times \frac{3}{4}$ in

- 1253 L aspidius** Fr (from the shield-like shape of the pileus, *aspid*, a shield) *a b*

P gibbous-convex then depressed, straw-colour, pale yellowish, or faintly lilac-shaded, marg with a tomentose, deciduous, white zone. *St* solid to stuffed, equal or attenuate downwards, whitish. *G* somewhat thick, whitish, faintly shaded lilac. *Flesh* colour as *G*. *Milk* white then lilac.

Taste sweet Damp pastures, moist places Sept $2\frac{1}{2} \times 1\frac{1}{4} \times \frac{3}{8}$ in

b Limacinae

- 1254 L insulsus** Fr (from its indifferent resemblance to **1276**, *insulsus*, insipid) *a b c*

P umbilicate then deeply infundibuliform, rigid, smooth, yellow or orange mid sienna-yellow, usually zoned, spotty-pale-sienna *St* solid to hollow, whitish or faint yellowish *G* decurrent, very crowded, forked at base, colour as *St* *Milk* white

Taste acid Mixed woods and their borders, pastures, common Aug
Oct $3\frac{1}{8} \times 1\frac{1}{2} \times \frac{7}{8}$ in Pileus sometimes 7 in in diam

- 1255 L zonarius** Fr (from the zoned pileus) *a b c*

P convexo-plane, depressed, even, smooth, 4- to 7-zoned near the minutely ruguloso-flocculose marg, pallid orange or pale yellowish, mid sometimes umber *St* solid, smooth dry, white then yellowish *G* thin, subcrowded, branched, whitish to dull yellowish, dingy when bruised *Milk* white

Taste very acid, strong, disagreeable Woods and their borders, grassy places, rare Aug-Oct $4\frac{1}{8} \times 1\frac{3}{8} \times \frac{7}{8}$ in

- 1256 L utilis** Fr (from its edible qualities, *utilis*, useful) *a*

P convexo-plane, obtuse, then infundibuliform, even smooth, tan, pale dull ochre or livid *St* solid to hollow even colour as *P* *G* adnate, crowded, pallid *Milk* white

Highly esteemed as an esculent in Russia Taste mild to slightly acid Woods, on the ground Autumn $5\frac{1}{8} \times 2 \times 1\frac{1}{4}$ in Sometimes olive shaded

- 1257 L blennius** Fr (from the slimy pileus, Gr *blennos*, mucus) *a b c*

P plano-depressed, pallid olivaceous, ferruginous-grey or indigo-sepia, shining with gluten mid dark, marg at first slightly downy *St* stuffed to hollow, subequal or attenuate downwards, even, viscid, pallid above, pallid grey or pale slate *G* thin, crowded, white, cinerous when bruised *Milk* white

Poisonous Taste very acid Woods beech, fields near woods, on the ground, rarely on trunks, common July-Nov $3\frac{1}{8} \times 1\frac{1}{4} \times \frac{5}{8}$ in

- 1258 L hyssginus** Fr (from the colour of the pileus, Gr *hyssginon*, a crimson dye) *a b c*

P umbilicate depressed, plane, even, red flesh-colour, reddish-brown or dark brownish sienna-salmon, somewhat zoned pale umber *St* solid to hollow, attenuate downwards, smooth, warm sienna-yellowish, somewhat spotted *G* thin, crowded, white to primrose or yellow-ochreous *Milk* white

Suspected poisonous Taste acid Woods, under beech, amongst grass, rare Aug-Nov $2\frac{3}{4} \times 2 \times \frac{1}{2}$ in

- 1259 L trivialis** Fr (from its commonness, *trivialis*, common) *a b c*

P convex, sometimes umbonate, then depressed and infundibuliform, even, smooth, zoneless, tan-umber-lavender, dull orange-

buff or dark to pale lurid *St* hollow, even, smooth, slippery, palest tan-grey, white, yellowish or paler than *P* *G* somewhat thin, crowded, whitish or pale yellowish *Milk* white

Taste very acrid Woods, chiefly pine, moist mossy places, uncommon Aug–Oct $6 \times 3 \times \frac{3}{4}$ in

- 1260 *L. circellatus* Fr (from the zones on the pileus, *circellus*, a small ring) *a b c*

P convexo-plane then depressed, umbilicate, even, smooth, rufous, fuscous or umber becoming pale, zoned grey or claret-brown *St* solid, equal, or attenuate downwards, even, smooth, pale yellowish, shaded faintly brownish or steel-whitish *G* thin, crowded, forked, whitish to pale yellowish *Milk* white

Taste stinging acrid odour not unpleasant Woods, amongst grass, rare Sept–Oct $4 \times 2\frac{1}{4} \times \frac{1}{8}$ in Must not be confounded with 1262 or 1263

- 1261 *L. uvidus* Fr (from the moist, clammy pileus, *uvidus*, moist) *a b c*

P convex, plane, then depressed, even, smooth, usually zoneless, pale lilac-umber on a yellowish ground, blotted lilac *St* hollow, smooth, viscid, whitish or light-yellowish, sometimes spotted yellow-ferruginous or lilac *G* thin, crowded, unequal, somewhat veined, whitish or yellowish, lilac when bruised *Milk* white, becoming bright lilac

Taste insipid to acrid odour weak, nauseous pungent, somewhat aromatic Woods, moist places uncommon Aug–Nov $3\frac{1}{2} \times 2\frac{1}{2} \times \frac{1}{2}$ in

c Piperatus

- 1262 *L. flexuosus* (from the frequently undulate margin of the pileus *flexuosus*, bending) *a b c*

P hard, plane, depressed, subfundibuliform, smooth to rivuloso-scaly, dull, zoned or zoneless, lead-grey, violet grey, violet-brown or purplish-umber *St* solid, equal or attenuate downwards, whitish or greyish, base yellowish *G* thick, distant, branched, light yellowish to whitish flesh-colour *Milk* white

Said to be edible Taste when raw very acrid Woods, pine July–Oct $5 \times 3\frac{1}{2} \times 1\frac{1}{4}$ in Var *roseozonatus* Fr *P* rosy flesh colour with darker z

- 1263 *L. pyrogalus* Fr (from the very acrid milk, *Gr pur*, fire, *cala*, milk) *a b c*

P convex, plane, depressed, smooth, cinereous-grey, dull yellow or umber tan, zoned sienna or madder-brown *St* stuffed to hollow, usually attenuate downwards, dull pallid-whitish or paler than *P* and *G* *G* thin, subdistant, light wax-yellow, tan-ochre or shaded reddish-salmon or straw-colour *Milk* white

Poisonous Odour sometimes of apple Woods, fir, pastures, frequent Aug–Nov $3\frac{1}{4} \times 1\frac{1}{2} \times \frac{1}{2}$ in Sometimes very small

- 1264 *L. squalidus* Fr (from the dingy colouring, *squalidus*, dirty) *a b*

P convex, umbilicate, depressed, smooth, tan-olive-green with darker mid or yellowish-olive-umber *St* solid, equal, smooth,

whitish or pale brownish *G* adnate, narrow, yellowish or shaded faint olive or tan *Milk* white

Taste mild to sweet Woods, beech, moist mossy places Oct
 $3\frac{1}{2} \times 3\frac{1}{2} \times \frac{1}{2}$ in

1265 L capsicum Schulz ex Fr (from the peppery taste, *capsicum*, red-pepper) *a*

P convex, obtuse, pulvinate, dark chestnut or deep sienna, mid paler *St* solid, equal, whitish with tawny or rufescent fibres, paler above *G* subcrowded, tawny, somewhat orange or ochreous-sienna *Flesh* yellowish, becoming pale sienna when broken *Milk* white

Woods, under birches, grassy places Sept $2\frac{1}{2} \times 1\frac{3}{8} \times \frac{5}{8}$ in

1265a L glaucescens Crossl (*glaucescens*, becoming sea-green) *a b c*

P fleshy, rigid, convex, umbilicato-depressed, smooth, glabrous, dry, zoneless, white then cream-colour, slightly spotted ochreous-white, marg involute *St* solid, attenuate downwards, smooth, compact, colour as *P* *G* adfixed, densely crowded, somewhat forked, narrow, colour as *P* *Milk* copious, white, then pale glaucous-green

Taste acrid Woods Aug-Sept $2\frac{1}{2} \times 1\frac{1}{8} \times \frac{5}{8}$ in

1266 L chrysorrheus Fr (from the gold-coloured milk, *Gr chrusos*, gold, *rheo*, to flow) *a b c*

P umbilicate then infundibuliform, pale yellow-pink, brownish-salmon, apricot or whitish, zoned reddish-brown *St* stuffed to hollow, equal, even, white or shaded yellowish-salmon *G* very thin, crowded, slightly furcate, pallid-yellowish, salmon or tan-straw colour *Flesh* white, bright sulphur when broken *Milk* white

Very acrid Woods, beech, mixed, frequent Aug-Oct $2\frac{1}{2} \times 2\frac{1}{8} \times \frac{3}{8}$ in

1267 L aeris Fr (from the acrid taste) *a b*

P convex, plane, sometimes subumbonate, at length depressed, scarcely zoned, umber or deep umber *St* stuffed to hollow, slightly attenuate downwards, tan, shaded umber *G* adnate-rounded to subdecurrent, thin, pallid to yellow flesh-colour or pale ochre, sparingly-spotted sienna-pink *Milk* white, then reddish

Odour strong, stinking Woods, rare Aug-Nov $4 \times 2 \times \frac{1}{2}$ in Often grows in company with 1289

1267a L violascens Fr (from the change of colour in the flesh and milk to pale violet) *a c*

P fleshy, depressed, glabrous, ashy, z smoky *St* solid, sometimes becoming hollow, equal, ashy- or greyish-white *G* somewhat crowded, white *Milk* white, then violaceous or pale lavender *Flesh* changing as milk

Poisonous Taste sweet Woods, rare Autumn $3\frac{1}{2} \times 2\frac{1}{4} \times \frac{1}{4}$ in

1268 L umbrinus Fr (from the colour of the pileus) *a b c*

P convexo-plane, depressed, rivuloso-floccose, umber to deep sepia or dark rufous-brown, zoneless or obscurely zoned darker
St solid, white to greyish, or as *P* *G* crowded, pallid-yellowish, grey-spotted *Milk* white, becoming greyish

Acrid Pine woods, damp places Autumn $3\frac{1}{2} \times 1\frac{1}{2} \times \frac{3}{4}$ in

1269 L plumbeus Fr (from the colour, *plumbeus*, leaden) *a b c*

P convex, then depressed and infundibuliform, greyish-brown, sooty-sepia with a shade of olive or tan-olive mid darker
St solid, equal, paler than *P* or tan-ochre *G* crowded, yellowish grey white *Milk* white

Woods Nov $9\frac{1}{4} \times 3\frac{1}{4} \times 1\frac{1}{8}$ in

1270 L pergamenus Fr (from its parchment colour, *pergamenus*, parchment) *a b* White or pale yellowish

P convex, plano-depressed, smooth, slightly wrinkled, zoneless
St stuffed, smooth, equal or slightly attenuate downwards
G adnate, very crowded, becoming straw-colour *Milk* white

Taste very acrid Woods Aug-Oct $3\frac{1}{2} \times 3\frac{1}{4} \times \frac{1}{2}$ in

1271 L piperatus Fr (from the peppery taste, *piper*, pepper) *a b c*
White

P convex, then depressed and infundibuliform, rigid, even, smooth, zoneless, often spotted faint umber or grey *St* solid, attenuate downwards, subpruinose *G* crowded, branched, becoming spotted dull, pale brownish-yellow *Milk* copious, white

Said to be edible, poisonous when raw Odour none Mixed woods, common July-Oct $7\frac{1}{4} \times 3 \times 1\frac{1}{4}$ in Sometimes clouded yellowish within and without

1272 L vellereus Fr (from the pubescent pileus, *vellus*, fleece) *a b c* White

P convex to depressed, dry, zoneless, rigid, becoming pale yellowish or spotted pale brownish or yellowish *St* solid, equal or attenuate downwards, thinly pubescent, pale sulphur within at base *G* somewhat thick, subdistant, branched
Flesh white, changing to pale sulphur *Milk* sparing, sometimes absent, white, sometimes pale sulphur, changing to white

Poisonous Taste bitter acrid Woods, beech, common Aug-Dec $8 \times 6 \times 2\frac{1}{4}$ in

1273 L seotieus B & Br (found first in Scotland) *a*

P convex to slightly depressed, pubescent, pale yellowish or faint brownish *St* solid, equal, pale flesh-colour *G* thin, broad, scarcely branched, pallid-white *Milk* white

Taste very acrid, odour pungent Amongst moss Autumn $2\frac{1}{2} \times 1\frac{1}{2} \times \frac{3}{8}$ in
T

1274 L involutus Sopp ex Cooke (from the involute margin of the pileus) *a b* White or faintly ochreous

P convex to slightly depressed, smooth, even, marg silky
St solid, equal *G* very crowded, narrow, sometimes furcate
Milk white

Taste very acrid Woods, on the ground Autumn $1\frac{3}{4} \times 1\frac{1}{8} \times \frac{1}{4}$ in Very firm and rigid as in 1272

DAPETES

1275 L deliciosus Fr (from its flavour when cooked) *a b c*

P convex to infundibuliform, smooth, subviscid, dull orange-yellow, zoned orange-sienna, sometimes clouded green *St* stuffed to hollow, equal, colour as *P*, usually spotted orange-reddish *G* crowded, saffron, green when bruised *Flesh* orange, becoming green when cut *Milk* red-saffron, then green

Gregarious Edible Sometimes acrid when raw, odour aromatic Woods, pine July-Nov $5 \times 2\frac{1}{4} \times \frac{1}{8}$ in This and 1295 are the "vegetable sheeps kidneys" of French cooks The gills are often attacked by a reddish parasitic fungus, *Hypomyces lateritius* *Epicoccum microspus* grows upon this species when decaying The deep orange milk of this plant must not be confounded with the sulphur coloured milk of 1280

1276 L sanguifluus Fr (from the blood-coloured milk, *sanguis*, blood, *fluo*, to flow) *a b*

P convexo-depressed, smooth, sometimes zoned, blood-red
St narrowed upwards, smooth, pallid *G* thin, white *Milk* blood-red, changing to green

Taste mild Oct $2\frac{1}{2} \times 2 \times \frac{3}{8}$ in Closely allied to 1275 but known *v*, its blood red, not orange, milk

RUSSULARES

1277 L pallidus Fr (from its pale colour) *a b c* Clay flesh-colour or dull buff-whitish

P convex to depressed, smooth, zoneless *St* stuffed to hollow equal, even, smooth *G* somewhat thin, crowded, slightly furcate *Milk* white

Taste somewhat mild, almost sweet Woods, beech, mixed, uncommon Sept-Oct $4 \times 2\frac{1}{4} \times \frac{3}{8}$ in

1278 L quietus Fr (from its mild taste, *quietus*, mild) *a b c*

P convex to depressed, rich sienna, clouded, splashed and somewhat zoned darker *St* stuffed, smooth, rufescent or as *l*
G somewhat furcate at base, whitish to yellowish sienna
Flesh white to rufescent *Milk* white

Taste sweet, somewhat of walnuts, odour oily, bug like Woods, moist common July-Nov $4 \times 2\frac{1}{4} \times \frac{3}{8}$ in Not unlike 202

1279 L aurantiacus Fr (from the bright orange-coloured pileus and stem, *aurantiacus*, orange-coloured) *a b*

P plano-depressed, even, zoneless *St* stuffed, smooth
G crowded, very decurrent, paler than *P* *Milk* white

Taste slowly acrid Woods, on the ground amongst moss Sept $2\frac{1}{2} \times 2 \times \frac{3}{8}$ in

- 1280 L. theiogalus** Fr (from the sulphur-coloured milk, Gr *theon*, brimstone, *gala*, milk) *a b c*

P convex to infundibuliform, sometimes papillate, even, smooth, somewhat rufous-tawny with a shade of liver, marg crenulate *St* stuffed to hollow, equal, or nearly so, even, rufous-salmon within and without *G* adnato-decurrent, thin, somewhat distant, faintly ochreous to deep yellow or rufescent *Milk* white, slowly becoming sulphur

Taste mild, then slowly acid, odour none Woods, mixed, pine, oak, amongst heather, sometimes on dead root stocks of *Purus aquilina*, frequent Aug-Nov $2\frac{1}{2} \times 2\frac{3}{4} \times \frac{1}{2}$ in The yellow milk of this species must not be confounded with the deep orange milk of 1275

- 1281 L. cremor** Fr (from the thick milk, *cremor*, thick juice) *a b*
Thin, fragile

P convex to plano-depressed, minutely punctulate, trwny, zoneless mid darker marg striate *St* hollow, equal, colour as *P* *G* idnate, subdistant, pallid, or as *P* *Milk* somewhat transparent white

Taste mild or slowly acid Woods, larch, beech, etc Sept $4\frac{1}{2} \times 1\frac{1}{2} \times \frac{1}{2}$ in
Var *pauper* Karst, smaller *P* $\frac{1}{2}$ in in diam

- 1282 L. vietus** Fr (from its appearance, *vietus*, shrivelled) *a b c*

P convex, then depressed, somewhat papillate, even, smooth, flesh-colour or livid-grey, becoming whitish-grey, mid pale umber *St* stuffed to hollow, equal or attenuate downwards, pale rose-brown or as *P* *G* somewhat crowded, white to yellowish *Milk* white, then pale lavender grey

Taste mild, becoming slowly acid odour faint but pungent Woods, mixed, damp, grassy places, on the ground Sept-Oct $3\frac{1}{2} \times 1\frac{1}{2} \times \frac{1}{2}$ in

- 1283 L. cyathula** Fr (from the cup-shaped pileus, *cyathula*, a little cup) *a b*

P convexo-plane, depressed, sometimes papillose, rimoso-rivulose, flesh-colour, pale yellowish or ivory, lavender-shaded, zoned, yellowish-brown or zoneless *St* stuffed, equal, even, smooth, whitish or yellowish, lavender-shaded *G* very crowded, thin, whitish, then yellowish-salmon *Milk* white

In troops Taste acid, odour at first none, then strong of bugs Woods, birch, damp ground Aug-Oct $2\frac{1}{2} \times 2\frac{1}{2} \times \frac{1}{2}$ in

- 1284 L. rufus** Fr (from the reddish colour) *a b c*

P plane to infundibuliform, usually umbonate, deep crimson-sienna, sometimes paler, zoneless or with one zone, marg sometimes sulcate *St* stuffed, equal, rufescent, paler than *P* *G* ochreous to rufescent *Milk* white

Poisonous Taste very acid bitter, odour none Woods, pine, etc, dry places June-Nov $3\frac{1}{2} \times 2\frac{1}{2} \times \frac{1}{2}$ in

- 1285 L. helvus** Fr (from the colour, *helvus*, pale yellowish) *a b c*

P convex to slightly depressed, sometimes subumbonate, granuloso-floccose, sometimes sienna-biscuit, sometimes faintly 1 to 2-zoned *St* stuffed to hollow, equal, pale buff

G crowded, whitish, pale yellowish or pale salmon *Milk* watery-white

Taste mild, sweet then slightly acrid, odour faint, sweetish Woods, fir, mossy places, swampy ground Aug-Oct $3\frac{1}{2} \times 2\frac{1}{2} \times \frac{3}{8}$ in

1286 L tomentosus Cooke (from the woolly tomentose pileus) *a b*

P at first umbonate, then infundibuliform, dull salmon to deep sienna *St* stuffed to hollow, equal, naked, smooth, pallid or salmon above, ochreous below red-streaked at mid *G* yellow flesh-colour or ochre, or white-ochre near edge and red above *Milk* whitish

Taste mild to slightly acrid, odour pleasant On the ground, damp places $4\frac{1}{2} \times 1\frac{3}{4} \times \frac{1}{2}$ in Sometimes confused with 1285

1287 L mammosus Fr (from the papillate pileus, *mamma*, a breast) *a b*

P convex to depressed, at first acutely umbonate, dry, grey-fuscos or dull pale indigo-greenish, zoneless or faintly zoned, marg white pubescent *St* stuffed to hollow, equal, pubescent, faint yellowish or brownish *G* crowded, whitish or pale yellowish to pallid ferruginous *Milk* white

Taste slowly acrid, odour none Woods, pine, on the ground Oct $3\frac{1}{2} \times 2\frac{1}{2} \times \frac{3}{8}$ in Var *monstrosus* Cooke Larger than type

1288 L glycosmus Fr (from the sweet smell, Gr *glukus*, sweet, *osme*, smell) *a b c*

P convex to slightly depressed, acutely papillate, yellowish, shaded over with pale lavender-purple, zoned pale purplish *St* stuffed to hollow, pubescent, whitish or light yellowish, tawny when bruised *G* crowded, thin, white to straw-ochreous *Milk* somewhat scanty, white, unchanging or changing to pale straw-green

Taste mild, then slowly acrid, odour strong, pungent sweet, fragrant aromatic. Woods mixed, chiefly pine, on the ground Sept-Nov $2\frac{1}{2} \times 2\frac{1}{2} \times \frac{3}{8}$ in

1289 L fuliginosus Fr (from the smoky colour, *fuligo*, soot) *a b c*

P convex to subinfundibuliform, dry, full velvety ochreous- or smoky-brown, marg paler *St* stuffed, equal or attenuate downwards, white, tan or pale tan-umber *G* somewhat distant, white, then pale ochreous, pale indian-red when bruised *Milk* white, sometimes watery, changing to rose and saffron *Flesh* changing to vinous when cut

Probably poisonous Taste mild, becoming very acrid nauseous odour faint nauseous pungent Shady woods, frequent Aug-Oct $4\frac{1}{2} \times 2\frac{3}{4} \times 1$ in Often growing in company with 1287

1290 L picinus Fr (from the black pileus, *pinus*, pitch-black) *a b*

P convex, obtuse or subumbonate, minutely velvety, umber to blackish-umber *St* stuffed, equal, smooth, paler than *P* or almost white, brownish below *G* adnate, thin, very crowded, pale ochreous to rufous tan *Milk* white

Taste acrid Woods, pine dried turfy swamps Aug-Oct $2\frac{1}{2} \times 2 \times \frac{3}{8}$ in

- 1291 *L. lignyotus* Fr (from the woody substance, *lignum*, wood, Gr *ous*, an ear) *a*

P convex to subinfundibuliform, umbonate, plicato-rugulose, velvety, deep umber-purplish or opaque sooty-umber *St* solid to stuffed, equal, striate above, colour as *P*, yellowish or whitish at base *G* adnexed to decurrent, somewhat crowded, whitish or yellowish, reddish when bruised *Flesh* white, changing to ochreous, saffron and ferruginous *Milk* white, scanty, changing through reddish to saffron

Poisonous Taste mild, sweet, pleasant, odour slight Amongst moss, in damp places under firs, beech Oct $3\frac{1}{2} \times 3 \times \frac{1}{2}$ in

- 1292 *L. lilacinus* Fr (from the lilac pileus) *a b* Fragile

P convex to depressed, papillate, floccose, rosy-lilac, zoneless, marg tan *St* stuffed to hollow, pale yellowish-brown or dull rose, lilac-shaded, or as *P*, white mealy *G* subdistant, pallid flesh-colour or yellowish-white *Milk* white, copious

Taste acrid Woods, damp places Aug–Oct $2\frac{1}{2} \times 1\frac{1}{2} \times \frac{1}{4}$ in

- 1293 *L. retisporus* Mass (from the reticulate spores) *a b*

P convex, then plane and depressed, minutely velvety, dark smoky-brown *St* equal, solid, even, glabrous, paler than *P* or pale sepia or greyish *G* subdistant, deeply sinuate, slightly adnexed, pale ochreous with darker spots *Flesh* dull yellowish or whitish-salmon, becoming reddish when cut *Milk* sweet, white, changing to brown and becoming thick and tenacious

Under beeches, on the ground Sept $3\frac{1}{2} \times 2\frac{1}{2} \times \frac{1}{8}$ in

- 1294 *L. spinosulus* Quel (from the spines on the pileus, *spinosulus*, full of little spines) *a*

P convex to depressed, acutely umbonate, clad with minute, erect spines, brick-red to rosy lilac, often zoned and spotted *St* stuffed to hollow, rugose, granulate, shining, colour as *P* *G* thin, yellowish flesh-colour to yellowish *Milk* white

Taste acrid On the ground Sept $1\frac{1}{2} \times 1\frac{1}{2} \times \frac{5}{16}$ in

- 1295 *L. volemus* Fr (from its resemblance to a certain large pear—the “Red Warden” or baking-pear—*voloma-pira*) *a b c*

P plano-convex to subdepressed, compact, bright rufous-tawny or golden, becoming pale, mid deep-sienna, zoneless *St* solid to stuffed, equal, pruinose, colour as *P* *G* thin, crowded, white to yellowish or yellow, orange-umber when wounded *Milk* white, sometimes changing to yellow

Edible Taste sweet, pleasant when raw Woods, mixed Oct $4\frac{1}{2} \times 4 \times 1\frac{1}{2}$ in The “Golden Brothing” of Germany and Hungary With 1276 the “vegetable sheeps kidneys” of French cooks

- 1296 *L. ichoratus* Fr (from the watery milk, Gr *ichor*, lymph) *a b*

P plane to depressed, dry, tawny reddish, mid brown-sienna, marg sienna-yellow, sometimes zoned *St* solid, equal, colour

as P G scarcely crowded, white to tan-yellow or ochreous
Milk white, unchangeable

Taste sweet, odour strong Woods Oct $2\frac{1}{2} \times 2\frac{1}{8} \times \frac{1}{2}$ in

- 1297 *L. serifluus* Fr (from the watery milk, *serum*, whey, *fluo*, to flow) *a b c*

P plane to depressed, dry, brown-tawny or orange-reddish, sometimes crimson-purplish, zoneless or with one faint zone
St solid, yellowish, red-salmon or paler than P G crowded, colour as *St*, yellowish or ochre-brownish *Milk* whitish, especially thin in examples from wet places

Taste almost mild, odour disagreeable, bug like Woods, mixed, damp places, frequent July–Nov $3 \times 2\frac{1}{2} \times \frac{1}{2}$ in Resembling 193

- 1298 *L. mitissimus* Fr (from its mild taste *mitissimus*, very mild) *a b c*

P convex to depressed, at first papillate, even, bright golden-tawny or bright orange, zoneless or faintly zoned *St* stuffed to hollow, even, smooth, colour as P G thin, paler than P, often rufous-spotted *Milk* copious, white

Taste mild to somewhat bitterish or slightly acrid disagreeable Woods, mixed, pine, hedge banks, etc, common Aug–Nov $2 \times 2\frac{1}{2} \times \frac{1}{8}$ in Like a small 1295

- 1299 *L. subdoleis* Fr (from the somewhat sweet taste, *dulcis*, sweet) *a b c*

P convex to depressed, at first papillate, even, dry, rufescent or orange-sienna, usually zoneless *St* stuffed to hollow, equal, subpruinat, colour as P G crowded, colour as P, or paler *Flesh* rufescent *Milk* white

Taste mild or sweet, then slightly bitter acrid odour none or like cedar wood Woods, mixed, fir July–Nov $3 \times 2 \times \frac{1}{2}$ in Resembling 201
 Form *concauus* Fr *P* concavo depressed colours of 1284 Form *phaneti* Fr Marg of P reflexed, crenate, shining as if varnished, red-bay

- 1300 *L. camphoratus* Fr (from the strong odour, sometimes of camphor) *a b c*

P convex to depressed, dry, brownish-red to sienna-orange, paler when young, somewhat zoned or zoneless *St* stuffed, equal, colour as P, paler above G yellow-reddish, paler than P, or salmon *Flesh* somewhat ochre or sienna *Milk* watery, white

Taste mild, odour sometimes of melilot, permanent in dried examples Woods, chiefly pine, frequent Aug–Nov $2\frac{1}{8} \times 2\frac{1}{4} \times \frac{1}{4}$ in Resembling 194 Var *Terrei* Cooke *P* $\frac{1}{2}$ in in diam corrugate, depressed, bay brown *St* colour as P clad with orange down

- 1301 *L. eimicarius* Mass (from the odour, *amex*, a bug) *a*

P convex to subinfundibuliform, deep sienna, shaded deep umber *St* stuffed to hollow, lighter than P, paler above G dusky ochre, sienna or rufous *Flesh* grey to yellowish *Milk* watery, white

Taste somewhat acrid, odour when fresh, strong, heavy, oily, bug like, fugitive Woods, on the ground Autumn $2\frac{1}{8} \times 1\frac{1}{8} \times \frac{1}{4}$ in

1302 L subumbonatus Lindgr (from the somewhat umbonate pileus) *a b*

P convex to depressed, acutely papillate, rugose, punctate, dark cinnamon, zoneless *St* stuffed, equal or attenuate downwards, rufescent, crimson-umber below *G* adnate, flesh-colour or reddish *Flesh* pale brown *Milk* watery, white

Taste mild, odour none when fresh, fetid in drying Woods, on the ground Sept $1\frac{3}{8} \times 1 \times \frac{3}{16}$ in

1303 L obnubilus Fr (from the clouded pileus, *obnubilo*, to overcloud) *a b*

P convex to depressed, at first papillate, brown-fuliginous or umber, zoneless marg somewhat striate *St* stuffed to hollow, equal, paler than *P* *G* somewhat crowded, yellowish *Milk* white

Taste mild, somewhat sweet Woods, damp places under alders, pastures Sept-Nov $2\frac{1}{8} \times 1\frac{7}{8} \times \frac{1}{4}$ in Var *crenatus* Mass *P* coarsely and regularly sulcate Usually larger than type Fir woods

1304 L minimus W *G* Sm (from its very small size, *minimus*, very small) *a b c* Pallid clay-colour

P pulvinate, obtuse, or subumbonate *St* usually excentric *G* furcate, moderately distinct, slightly darker than *P* *Milk* white

Taste mild Woods, pastures Oct $\frac{5}{16} \times \frac{3}{16} \times \frac{1}{16}$ in

PLEUROPODÆ

1305 L obliquus Fr (from the oblique stem) *a* White, changing to yellowish

P plano-depressed, lobate, silky, zoned grey *St* stuffed to hollow *G* crowded, white *Milk* white

Odour strong Trunks, beech, burnt stumps, banks Oct $2\frac{1}{2} \times 1 \times \frac{1}{4}$ in Pileus sometimes 6 in or more in diam

XLIX RUSSULA Fr

(From the frequently reddish colour of the pileus, *ruissulus*, reddish)

Val obsolete *Hymenophore* confluent and homogeneous with the stem *Pilus* fleshy, rigid, regular, at length depressed *Stem* central, stout, rigid, without cartilaginous bark, shining, exannulate *Gills* adnate, rigid, fragile, often equal in length or furcate, edge thin, acute, sometimes exuding watery drops, especially in rainy weather, but not milky as in *Lactarius*, *trama*, vesicular *Spores* minutely verruculose or echinulate, white or pale yellowish (Fig 63)

Terrestrial fleshy rigid and brittle putrescent fungi appearing in late summer and autumn A few species are reputed edible, but most are noxious, and there is some danger of confusing the esculent with the poisonous Odour none or unpleasant

Russula agrees with *Lactarius* in size and some other characters, but differs in the absence of milk

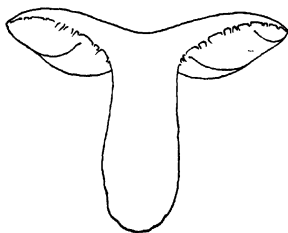


Fig. 63.—Section of *Russula lepida* Fr
One half natural size

The sclerotia and perfect plants of **248** sometimes grow from the gills of **1306** and **1307**

Sphaeronema vitreum frequently grows on species of *Russula* and *Lactarius* Species **1306—1367**

- a Compactæ* *Pileus* fleshy, margin bent inwards, without striæ, without a distinct viscid pellicle, colour only changing with age and the state of the atmosphere *Stem* solid, fleshy *Flesh* compact, firm *Gills* unequal **1306—1313**
- b Furcatæ* *Pileus* compact, firm, covered with a thin closely adnate pellicle, which at length disappears, margin abruptly thin, at first inflexed, acute, even *Stem* at first compact, then spongy-soft within *Gills* somewhat forked, with a few shorter ones intermixed, commonly attenuate at both ends, thin, and normally narrow **1314—1324**
- c Rigidæ* *Pileus* without a viscid pellicle, dry, rigid, the cuticle breaking up into flocci or granules, margin straight, never involute or striate *Stem* solid, at first hard, then softer or spongy *Flesh* thick, compact, firm, ending short of the margin of the pileus *Gills*, a few dimidiate, others divided, rigid, dilated in front, running out with a broad, rounded front, whence the margin of the pileus becomes obtuse. Handsome, somewhat rare **1325—1334**
- d Heterophyllæ* *Pileus* fleshy, firm, with a thin, at first inflexed margin, then, except **1340**, expanded and striate, covered with a thin adnate pellicle *Stem* solid, stout, spongy within, sometimes becoming hollow *Gills* consisting of many shorter, mixed with longer ones, others furcate **1335—1346**
- e Fragiles* *Pileus* more or less fleshy, covered with a pellicle which is always continuous, and in wet weather viscid and

somewhat separable, margin membranous, at first convergent and not involute, in full grown plants commonly sulcate and tubercular, not striate in 1348, 1356 and 1363 *Stem* spongy, at length wholly soft and hollow *Gills* almost all equal, simple, broadening in front, free *Flesh* commonly floccose, lax, friable Several doubtful forms occur, 1357 is specially variable in colour

<i>Gills</i> and <i>spores</i> white	1347—1355
<i>Gills</i> and <i>spores</i> white, then bright lemon-yellow	1356—1361
<i>Gills</i> and <i>spores</i> ochreous	1362—1369

a Compactæ

1306 **R nigricans** Fr (from its changing to jet-black in decay, *nigricans*, becoming black) *a b c*

P convex, depressed, streaky umber-tan, sometimes olive-shaded mid almost black *St* attenuate downwards, siennatan, steel-greyish or faint purplish *G* rounded-adnexed, very thick, distant, pale yellowish *Flesh* white, then reddish or pale purplish, at length black

Odour none Woods mixed, etc common June–Nov $5\frac{1}{2} \times 2\frac{1}{2} \times 2$ in Becoming wholly black and in this character analogous with 1221 1389 grows on decaying examples of this species

1307 **R adusta** Fr (from its scorched appearance, *adustus*, scorched) *a b c*

P convex to depressed or subinfundibuliform, smooth, whitish to pallid yellowish, at length clouded olive-sepia *St* equal, colour as young *P* *G* adnate to decurrent, thin, crowded, white then dull *Flesh* unchangeable or becoming grey or pale sooty

Taste mild to acid Woods, frequent to rare, local Aug–Oct $3\frac{1}{2} \times 2\frac{1}{2} \times 1\frac{1}{2}$ in Not becoming wholly black 1390 grows upon this species and on 1341 *Var cærulescens* Fr becomes blue when broken or cut

1308 **R albonigra** Fr (from the colours, *albus*, white, *niger*, black) *a b* Very rigid

P convex to infundibuliform, viscid, whitish, marg smoky *St* dusky, or white above, pale grey-ochreous towards base, spotted sooty *G* decurrent, crowded, thick, unequal, connected by veins, dimidiate, dusky whitish or yellowish *Flesh* white, then black or sooty, not red

Taste somewhat acid and unpleasant to mild, odour none Grassy places under trees Aug $3\frac{1}{2} \times 1\frac{1}{2} \times 1\frac{1}{2}$ in

1309 **R densifolia** Cooke (from the crowded gills, as compared with 1306, *densus*, thick, *folium*, a leaf) *a b*

P convex to depressed, smooth, whitish, becoming streaky-fuliginous, grey or brownish, mid black *St* smooth, whitish to grey, then blackish *G* adnato-decurrent, unequal, thin,

white to rosy, red when bruised *Flesh* white, reddish when bruised, becoming black

Taste mild to slowly acrid Woods, under trees Aug-Sept $4\frac{3}{8} \times 2\frac{1}{4} \times \frac{7}{8}$ in

- 1310 R semierema** Fr (from the white stem becoming cinereous and black when broken, *semi*, half, *cremo*, to burn) *a* White or faintly yellowish

P convex to depressed, even *St* equal or slightly attenuate upwards *G* decurrent, crowded, thin *Flesh* in *P* white

Taste mild odour none Woods, mixed, amongst leaves Aug-Sept $4\frac{1}{2} \times 2\frac{3}{4} \times \frac{7}{8}$ in

- 1311 R delica** Fr (from its resembling a milkless **1272** in appearance, *delicus*, weaned) *a b c* White or whitish

P convex to depressed, even, smooth *St* even, smooth *G* decurrent, thin, distant, unequal, exuding small watery drops in wet weather

Woods, mixed, usually pine, uncommon Sept-Oct $5 \times 2 \times 1\frac{3}{8}$ in

- 1311a R chloroides** Bres (from the greenish-yellow colour of the gills, *Gr chloros*, greenish-yellow, *oides*, appearance) *a b c*

P fleshy, plane to infundibuliform, marg incurved, pubescent, whitish, whitish-buff or livid *St* solid, equal or attenuate downwards, thinly pubescent, whitish *G* decurrent, somewhat crowded, furcate, veined, verdigris-white, greenish white, or turquoise-white, shaded emerald-green-white *Flesh* thick, whitish to snow-white

Acrid Woods, pine Aug-Oct $4 \times 2\frac{1}{2} \times 1$ in

- 1312 R elephantina** Fr (from Fries thinking, in error, that Bolton's obese *Agericus elephantinus* might be one form of this comparatively slender species) *a b*

P convexo-umbilicate, fuscous-tan, marg undulate, paler, dark wash-leather colour when dry *St* hard, even, smooth, paler than *P* *G* adnate or sinuato-adnate, then subdecurrent, arcuate, somewhat crowded to distant, thin, obtuse, divided behind, unequal in front, spotted pale yellowish when touched, dull pale salmon when dry

Odour none Woods Sept $3 \times 2\frac{1}{2} \times 1$ in Habit of **1341**, but inodorous *A. elephantinus* Bolton (*Hist Fung* t 28) is undoubtedly **1306**, as is shown by the remote gills and the change of colour to black

- 1313 R mustelina** Fr (from the colour of the pileus, *mustela*, a weasel) *a b*

P convex to depressed, opaque yellow-ochre or sienna with yellow to full burnt sienna *St* white, whitish, or faintly shaded yellowish, brownish or salmon *G* adnexed, adnate or rounded, crowded, veined above, somewhat branched

Woods Oct $3 \times 2\frac{1}{2} \times \frac{3}{4}$ in

*b Furcata***1314 R olivaceus** Fr (from the pileus, more or less olive) *a b*

P gibbous to slightly depressed, olive, ochreous-olive or olive-brownish, mid yellow to olive-brown *St* equal, white or shaded pale yellowish or olive-tan *G* adnate, crowded, almost equal, colour as *St*

Taste mild becoming slightly acrid, gills acrid Woods, bushy shady places Aug $5 \times 2\frac{1}{2} \times 1$ in

1315 R furcata Fr (from the forked gills, *furcatus*, forked) *a b c*

P gibbous to depressed, even, smooth, not breaking into warts, æruginous-greenish, umber greenish, olive-tan, dark indigo-olive, slate or dull reddish-purple, sometimes clouded dull rose *St* equal, white *G* adnato-decurrent, rather thick, somewhat distant to crowded, white *Flesh* white, often pale rose under olive pellicle of pileus

Taste mild to more or less bitter Woods, grassy places under trees, meadows, common May-Oct $5\frac{1}{2} \times 2\frac{1}{2} \times 1\frac{1}{2}$ in Var *pictipes* Cooke *St* rosy above, greenish below Var *ochrolepis* Cooke *P* marg ochreous, mid olivaceous or fuliginous *Flesh* fuliginous when cut

1316 R sanguinea Fr (from the blood-coloured pileus, *sanguis*, blood) *a b c*

P convex to depressed, shining, even, mid thick, marg becoming pale, sometimes white-clouded *St* equal, slightly striate, white or reddish *G* decurrent, sometimes adnate, crowded and veined, white *Flesh* white, carmine under pellicle of pileus

Poisonous Taste acrid, peppery Woods, chiefly fir, grassy places, uncommon Aug-Sept $4 \times 2\frac{1}{2} \times 1$ in Must not be confounded with 1329 which differs in the solid firm flesh and the form of the gills

1317 R rosacea Fr (from the rose-coloured pileus) *a b*

P convex to flat, even, pellicle viscid and separable in wet weather, white, salmon, pale rose to red-rose and darker at the sometimes faintly-ochreous mid, sometimes white, red-spotted *St* even, smooth, white to reddish *G* adnate, thin, crowded to distant, white *Flesh* white, rose-colour under pellicle of *P*

Taste mild, becoming slowly acrid, gills acrid Woods, mixed grassy places, frequent Aug-Oct $3\frac{3}{8} \times 2\frac{1}{2} \times \frac{5}{8}$ in

1318 R maculata Quel (from the spotted pileus and stem, *maculatus*, spotted) *a b*

P hemispherical to depressed, viscid, reddish flesh-colour to pallid, then discoloured and spotted purple or brown, marg striate, often dark *St* reticulato-striate, white or rosy then spotted ochre, not becoming grey *G* adnate, pallid-sulphur to somewhat peach-colour

Taste somewhat acrid Sept $3\frac{1}{2} \times 1\frac{1}{2} \times \frac{5}{8}$ in

1319 R sardonía Fr (from the acrid taste like that of a certain plant, *Herba Sardonæ*, *Ranunculus scleratus*) *a b c*

P convex to plane or slightly depressed, viscid in wet weather, reddish-purple or pale lemon with mid orange-yellow, often partially white, marg sometimes striate and somewhat tuberculose *St* equal, even, white, yellowish or reddish *G* adnate, crowded, white, spotted yellowish from exuded drops in wet weather *Flesh* white

Woods, chiefly fir, larch, near paths, uncommon Sept–Nov $4\frac{1}{2} \times 2\frac{1}{2} \times 1$ in

1320 R depallens Fr (from the pileus becoming pale, *depalleo*, to be pale) *a b*

P convex to plane or depressed, often undulate or irregular, reddish, red-crimson, fuscous, purplish-rose or dark purple-crimson, the hues becoming pale to yellowish or white, the slightly striate marg sometimes cobalt-purple *St* equal, white to pale greyish *G* adnexed, scarcely crowded, white to pale yellowish

Edible Taste mild to bitter or acrid odour none Woods, beech, pastures, etc, uncommon June–Oct $4 \times 1\frac{1}{2} \times \frac{3}{4}$ in

1321 R purpurea Gill (from the purple pileus) *a b*

P hemispherical to depressed, rugoso-plicate, deep purple, mid darker marg even, then faintly striate *St* striate, white, or white above, rosy in middle, yellowish below *G* rounded, white to yellowish *Flesh* yellowish, red beneath the pellicle

Taste mild Under larches, oak, amongst grass Aug–Oct $3\frac{1}{2} \times 1\frac{1}{2} \times \frac{1}{2}$ in

1322 R cœrulea Fr (from the partially azure blue colour, *cœruleus*, azure) *a b*

P convex or umbonate to slightly depressed, shining, deep red-purple or bluish-purple, marg even, somewhat cobalt, sometimes with a white line round edge, mid bluish-purple or buff *St* white, sometimes rose at base *G* adnate white to yellowish *Flesh* white, deep purple under pellicle

Taste mild Woods, pine, etc, grassy places Aug–Oct $3\frac{3}{8} \times 2\frac{1}{4} \times \frac{1}{2}$ in

1323 R drimeia Cooke (from the pungent taste, Gr *drimus*, pungent) *a b*

P hemispherical to depressed, scarcely viscid, bright deep purple or deep brownish-red-purple, marg even *St* equal, tinged with purple *G* adnexed, pale sulphur to pale yellow

Intensely acrid Under larches Sept–Nov $3\frac{3}{8} \times 2\frac{3}{8} \times \frac{3}{4}$ in (colour and habit of 1345, differing in yellow gills and intense acidity)

1324 R virginea Cooke & Mass (from its wholly white colour) *a b*

P convex to depressed, smooth, even, viscid when moist, lustrous when dry, marg even *St* solid, slightly attenuate upwards, finely rugulose *G* decurrent, crowded, furcate, narrow

Taste mild Terrestrial Under trees, beech Oct $2 \times 2\frac{1}{2} \times \frac{1}{2}$ in
Must not be confounded with other *Russula* bleached white with age

*c Rigidæ***1325 R lactea** Fr (from its milk-white colour, *lac*, milk) *a b*

P convex, sometimes faintly spotted cream-buff, mid biscuit-buff *St* nearly equal, even, white, sometimes rose at base *G* free to adnate, thick, distant, furcate at base and apex, ivory

Said to be edible, but suspicious Taste mild odour of meal Woods, mixed, fir, uncommon Aug–Oct $3\frac{1}{2} \times 2\frac{1}{4} \times \frac{3}{4}$ in Var *incarnata* Cooke *P* shaded with pink buff or dull purple rose, with lighter and a few pale sienna spots

1326 R virescens Fr (from the frequently green pileus, *vireo*, to be green) *a b c*

P pulvinate to depressed, innato-flocculose, without a pellicle, surface soon broken up into patches or warts, verdigris-green, varying olive, dull ochre with mid verdigris, reddish-purple and other shades *St* somewhat rivulose, often clouded pale verdigris *G* free, white to biscuit *Flush* white, verdigris under pellicle

Edible Taste mild, like hazel nuts when raw, sometimes slowly and slightly acrid, odour of 1394 Woods, frequent July–Oct $4\frac{1}{2} \times 2\frac{1}{4} \times 1$ in The “Champignon des Dames” of French authors

1327 R eutefracta Cooke (from the broken cuticle), *eutefractus*, with the skin broken) *a b*

P pulvinate to depressed, even, cuticle cracking as in 1326, surface green, purple, bluish-purple, dull red, claret-red, etc., purple beneath cuticle *St* equal, smooth, white, often clouded rose-purplish *G* adnexed or nearly free, somewhat crowded, white or pale yellowish

Taste mild Woods Sept $3\frac{1}{2} \times 1\frac{3}{4} \times \frac{3}{4}$ in Probably a form of 1326, intermediate forms occur

1328 R lepida Fr (from its appearance, *lepidus*, elegant) *a b c*

P convex to slightly depressed, often rimoso-squamulose, reddish-rose with deep red-rose mid or sienna-ochreous with deep red mid, which at length becomes whitish *St* even, equal, white to rose *G* adnato-rounded, somewhat thick, somewhat crowded, white or pale yellowish, often rose at edge

Edible Taste mild Woods, mixed, amongst grass, frequent Aug–Oct $4\frac{1}{2} \times 2\frac{1}{2} \times 1$ in Becomes green in cooking

1329 R rubra Fr (from the red pileus *ruber*, red) *a b c*

P hemispherical to plane or slightly depressed, dry, becoming lustrous, often rivuloso-rimose when old, intense crimson, mid almost black or deep purple, becoming pale *St* even, equal, or slightly attenuate upwards, white, sometimes clouded rose or purplish *G* adnate, somewhat crowded, whitish to yellowish, often red at edge *Flush* reddish under cuticle

Poisonous Flesh mild, gills very acrid Woods, mixed, grassy places, frequent Aug–Nov $4\frac{1}{2} \times 4\frac{1}{2} \times 1$ in Must not be confounded with 1316

1330 R Linnæi Fr (in honour of Linnæus) *a*

P convex to plano-depressed, even, smooth, dry, dark purple or blood-red to light rose *St* sometimes hollow, subventricose, deep blood-red to rose *G* adnato-decurrent, rather thick, not crowded, white to pale yellowish

Taste mild, sweet Woods Oct $5 \times 3\frac{1}{2} \times 1\frac{1}{2}$ in Sometimes white

1331 R xerampelina Fr (from the colour of the pileus, like dying vine-leaves, Gr *xerampelina*, of the colour of dry vine-leaves) *a b c*

P convex to depressed, dry, even, at length finely granulate, rosy-purplish or dark rosy-red, clouded buff, mid becoming yellowish-white *St* sometimes hollow, equal or slightly attenuate upwards, white or reddish *G* adnexed, somewhat crowded, whitish to yellowish *Flesh* whitish

Taste mild, odour strong of crab Woods, fir, grassy places July-Oct $4\frac{1}{2} \times 3\frac{1}{2} \times \frac{7}{8}$ in

1332 R olivacea Fr (from the colour of the pileus, at length olive) *a b*

P hemispherical to slightly depressed, slightly silky-squamulose, dull purple to olivaceous or fuscous-olivaceous, not lustrous *St* equal or ventricose, pallid, rose-colour or clouded pale purple or orange-crimson, crimson and ochre at base *G* adnexed, yellow

Edible Taste mild Woods, pine, grassy places Aug $4 \times 3 \times \frac{5}{8}$ in

1333 R serotina Quel (from its sometimes late appearance, *serotinus*, backward) *a b*

P hemispherical to flat, pruinose, sooty-purplish or olive, or clouded-slate and dull olive, marg lilac or purplish-reddish *St* equal or attenuate downwards, wrinkled, mealy, white *G* adnexed, crowded, yellowish-white

Taste acrid Under beeches Aug-Sept $1\frac{1}{2} \times 1 \times \frac{3}{16}$ in

1334 R Duportii Phill (after the Rev Canon J M Du Port) *a b*

P convex to depressed, smooth, mid rufous, dull purplish, brown, or flesh red, marg becoming indistinctly striate and tuberculate, dull bluish or greenish *St* minutely striate, glabrous, white or dull sienna-white *G* rounded, broad, distant, white or faintly yellowish *Flesh* reddish-brown when cut

Taste mild, pleasant, odour of crab Woods Sept $2\frac{1}{2} \times 2\frac{1}{2} \times \frac{7}{8}$ in

*d Heterophylla***1335 R vesca** Fr (from its edible qualities, *viscus*, eatable) *a b c*

P convex to depressed, viscid, slightly wrinkled, rose-purple, red-flesh-colour, liver, tan-buff umber or ochre, or clouded purple and buff, mid usually darker, not becoming pale

St wrinkled, equal or attenuate downwards, white, sometimes shaded pale rose, purple or ochre *G* adnate, crowded, white or yellowish

Edible Taste mild, pleasant to unpleasant, odour of hog's lard or somewhat like crab, becoming like lobster or crab when cooked Woods, mixed, frequent Aug-Oct $4\frac{1}{2} \times 2\frac{1}{2} \times \frac{3}{8}$ in

1336 R lilacea Quel (from its lilac colours) *a*

P convex to depressed, viscid, violet, purple or rosy-purple, marg at length almost white *St* attenuate downwards, pruinose above, white, sometimes rosy at base *G* adnate, distant, white *Flesh* violet under pellicle

Taste mild Woods, moist places Aug $3\frac{1}{2} \times 2\frac{1}{2} \times \frac{1}{2}$ in

1337 R azurea Bres (from the azure-blue pileus) *a b*

P convex to depressed, minutely granulose, dry, bright blue, deep purple, dark indigo or greenish slate, mid sometimes ochre or brown, marg scarcely striate, sometimes lilac, becoming dilute cobalt and indigo *St* rugulose, equal, ventricose or subclavate, white or clouded pale rose *G* adnate, crowded, white

Edible Taste mild, sometimes bitter Woods, fir, grassy places under trees Aug-Sept $3\frac{1}{2} \times 1\frac{1}{2} \times \frac{3}{4}$ in

1338 R cyanoxantha Fr (from the colours, Gr *kyanos*, blue, *xanthos*, yellow) *a b*

P hemispherical to depressed, viscid, lilac, purplish, oliveaceous-green, green-slate, purplish-rufous, pale rose, purplish-slate or buff, mid becoming pale or yellowish *St* equal, smooth, shining, hollow when old, white *G* rounded, somewhat crowded, white *Flesh* white, reddish or purplish beneath pellicle

Said to be edible Taste mild, pleasant Moist places in woods, mixed common June-Oct $3\frac{1}{2} \times 2\frac{1}{2} \times \frac{1}{2}$ in

1338a R mitis W G Sm (from the mild taste, *mitis*, mild) *b*

P convex, then plano-expanded and depressed, viscid, then smooth, with a separable pellicle, striate and in old examples, tuberculate, mid pale yellowish, surrounded by purplish-mouse-colour or pale rose and purple, marg yellowish or biscuit *St* stuffed, then hollow, slightly attenuate downwards, rugulose, white *G* adnate, branched, veined above, white, then faint straw colour *Flesh* white, tinging to rusty, pale ochre beneath pellicle

Taste mild Woods Aug $3 \times 2 \times \frac{1}{2}$ in

1339 R heterophylla Fr (from the gills, of different lengths, Gr *heteros*, one of two, *phyllon*, a leaf) *a b c*

P hemispherical to depressed, even, shining, usually apple-green or indigo apple-green, mid darker or pale apple-green, clouded brownish or sienna, never reddish or purple

St equal, even, white *G* thin, attenuate behind and reaching the stem, crowded, white

Edible Taste mild, sweet, nutty, odour of hog's lard, but like lobster or crab when cooked Woods, etc., common July-Oct $4 \times 2\frac{1}{2} \times 1$ in
Var *galochroa* Fr *P* white to whitish apple green

1340 R consobrina Fr (related to **1341**, *consobrinus*, a cousin) *a b*

P campanulate to depressed, viscid, dark cinereous to fuscous-olivaceous, tan-umber, tan-sepia, sooty-sepia or yellowish-umber, mid darker, marg even *St* even, smooth, shining-white, then cinereous *G* adnate, crowded, shining-white
Flesh white, ashy under pellicle

Taste of flesh acrid, gills intensely acrid, not fetid as in **1341** Mixed woods, pine, beech July-Oct $3\frac{3}{8} \times 1\frac{1}{2} \times \frac{3}{8}$ in Var *sororia* Fr, margin striate Var *intermedia* Cooke *P* becoming striate *St* usually attenuate downwards *G* dull white

1341 R foetens Fr (from the fetid odour) *a b c*

P bullate to expanded, sometimes depressed, viscid in wet weather, sienna- or brown-yellow, marg striato-ribbed, at length tuberculate *St* becoming hollow, whitish or yellowish *G* adnexed, crowded, exuding watery drops, whitish

Said to be poisonous Taste acrid, rarely mild, odour fetid burnt, empyreumatic, very strong in mature examples in wet weather, sometimes slight Woods, very common July-Oct $4\frac{1}{2} \times 3\frac{1}{2} \times 1\frac{1}{2}$ in **1390** grows on this species

1342 R subfoetens W G Sm (from the somewhat fetid odour) *a b*

P convex to plane and subdepressed, somewhat viscid, sienna-yellowish or buff, paler at the striato-tuberculate marg *St* equal, even, whitish or faintly buff *G* thick, branched, distant, yellowish-white

Taste slightly acrid and bitter, odour somewhat disagreeable Grassy places Aug-Sept $3\frac{1}{2} \times 2 \times \frac{3}{4}$ in Whole plant tough, elastic

1343 R fellea Fr (from the bitter-acrid taste, *felleus*, full of gall) *a b c*

P hemispherical to convex, smooth, lustrous, straw-colour to ochre or buff, mid brownish *St* equal, even, white to straw or pale yellowish, or shaded pale buff *G* adnate, more or less crowded, thin, exuding drops in wet weather, pale yellowish or faint buff

Poisonous Taste intensely bitter and acrid, odour none Woods, beech, open places, common Aug-Nov $4\frac{1}{2} \times 2\frac{1}{2} \times \frac{3}{4}$ in

1344 R elegans Bres (*elegans*, pretty) *a b*

P hemispherical to depressed, glutinous and densely granulate, bright rosy flesh-colour, soon ochreous at marg or pale crimson, mid purple-crimson or rose-buff, spotted crimson or purplish-crimson, marg tuberculose *St* equal, becoming hollow, subrugulose, white, ochre-buff below *G* adnexed or rounded adnate, crowded, rarely furcate, whitish, ochre above, becoming orange-ochre with age *Flesh* very firm, white, ochre-buff with age

Woods, moist Sept $3\frac{3}{8} \times 2 \times \frac{3}{4}$ in

1345 R Queletii Fr ex Quél (after Dr Lucien Quelet) *a b c*

P convex to infundibuliform, even, viscid, intense blackish-crimson or purple-crimson, sometimes paler at marg or wholly intense purple, blue-purple or slate *St* equal or attenuate downwards, mealy, dark or pale-purple to faint rose, sometimes paler above *G* adnixed, exuding drops, white to biscuit, at length bluish-ashy or cinereous spotted *Flush* white, colour as *P* under pellicle

Taste acrid Woods, fir, common Aug-Nov $2\frac{1}{2} \times 2\frac{1}{2} \times \frac{1}{2}$ in

1346 R expallens Gill (from its losing colour *expallens*, becoming pale) *a b*

P convex to depressed, viscid, deep bright crimson-purple or deep claret-purple, mid darker, sometimes almost black, losing colour and becoming livid-cream, with mid dull pale purplish *St* equal, mealy, rose-purple, paler or somewhat buff at base *G* adnixed, pallid yellowish or somewhat lemon *Flush* purple, pale yellowish or white

Taste intensely acrid Under trees Sept-Oct $3\frac{1}{2} \times 3\frac{1}{2} \times \frac{1}{2}$ in

*c Fragilis***1347 R emetica** Fr (from its acting as an emetic) *a b*

P convex to plane or slightly depressed, lustrous blood-red to rose, sometimes bleaching to almost white or purplish, tawny when old *St* equal, even, longitudinally rugulose, white or reddish *G* adnexo-free, somewhat distant *Flush* white, rose-colour under the separable pellicle

Poisonous Taste very acrid Woods and open damp places common July-Dec $4\frac{1}{2} \times 3\frac{1}{2} \times \frac{1}{2}$ in Var *Clusia* Fr *Flush* white, turning yellowish Var *fallax* Fr is a form of 1354

1347a R luteotaeta Rea (from the change of colour to light yellow when bruised, *luteus*, yellow, *tactus*, a touch) *b*

P hemispherical, then plane and subumbonate, ruguloso-rugulose, carmine-scarlet, becoming whitish at the striate marg *St* equal, or slightly attenuate downwards, rugulose, white, shaded pale lilac, yellowish when bruised *G* furcate, adnate, very light straw-colour, yellow when bruised *Flush* white, colour as *P* under pellicle, tinging yellowish when bruised or slug-eaten

Taste of flesh acrid, of gills very acrid On the ground, woody places Aug $1\frac{1}{2} \times 1\frac{1}{2} \times \frac{1}{2}$ in

1348 R fingibilis Britz (from its seeming distinctness, *fingibilis* imaginary) *a*

P convex to depressed, viscid, yellow, with orange or brownish mid, marg not striate *St* equal, white or faintly yellowish *G* somewhat crowded, thin *Flush* white

Taste mild, odour none Amongst grass under trees July $2\frac{1}{2} \times 1\frac{1}{2} \times \frac{1}{2}$ in
u

1349 R pectinata Fr (from the sulcate margin of the pileus, like the teeth of a comb, *pecten*, a comb) *a c*

P convex to flat or slightly depressed, rigid, viscid, yellowish-umber or dull ochre, with a dark or purplish mid, becoming pale, marg tuberculoso-sulcate *St* equal, spongy-stuffed, rigid, slightly striate, white or faintly greyish *G* attenuato-free, subcrowded

Suspected poisonous Taste somewhat acid, odour weak, nauseous, somewhat like 1341 Woods, mixed Aug $3 \times 1\frac{1}{2} \times \frac{1}{2}$ in

1350 R ochroleuca Fr (from the usually yellowish-white pileus

Gr *ochros*, pale yellow, *leucos*, white) *a b c*

P convex to slightly depressed, lustrous, deep or light yellow, becoming pale, never reddish marg striate when old *St* equal, slightly reticulato-wrinkled white to lemon-white, becoming pale steel-grey *G* rounded, white or pale yellowish

Taste of flesh mild, gills acid odour none, or pleasant Woods, chiefly fir, frequent July-Nov $3\frac{1}{2} \times 2\frac{1}{2} \times \frac{1}{2}$ in Var *claroflava* Cooke
P deep chrome yellow *G* white becoming pale lemon then somewhat ochraceous

1351 R granulosa Cooke (from the at length, minutely granular pileus and stem) *a b*

P convex to subinfundibuliform, pale or ochreous yellow mid darker marg paler *St* equal, white above, as *P* or somewhat sienna below *G* adnexed or adnate rarely furcate, somewhat crowded

Taste of flesh mild, gills acid odour sour Under trees Aug-Sept $3\frac{1}{2} \times 2\frac{1}{2} \times \frac{1}{2}$ in

1352 R æruginea Fr (from the verdigris-green pileus *æruginus*, like verdigris) *a b*

P convex to slightly depressed, even, somewhat dry sometimes olive or umber-yellowish blotted with olive mid darker *St* equal, even, smooth, white *G* attenuate behind and slightly adnexed, somewhat distant

Taste mild, pleasant Woods Aug $4\frac{1}{2} \times 1\frac{1}{2} \times 1\frac{1}{2}$ in

1353 R citrina Gill (from the citron-coloured pileus) *a b*

P convex to depressed, smooth, sulphur lemon with mid brassy-yellow, sometimes faintly greenish with mid becoming pale ochreous *St* equal, striate, white to faintest lemon *G* attenuate and furcate behind, adnexed *Flesh* white, brassy-yellow under pellicle

Taste sweet to acid, odour almost obsolete Woods, mixed Aug-Oct $3\frac{1}{2} \times 1\frac{1}{2} \times \frac{1}{2}$ in

1354 R fragilis Fr (from the brittle substance) *a b c*

P convex and sometimes umbonate to depressed, crimson, purple, rose-flesh-colour to buff or white, often clouded, changing colour, mid darker or fuscous, not red under the

pellicle *St* equal, slightly striate, white *G* adnexed, thin, crowded, ventricose

Taste very acrid Moist places in woods, common Aug -Oct $2\frac{1}{2} \times 1\frac{1}{2} \times \frac{3}{4}$ in
 Var *nivea* Cooke *P* white Var *violacea* Cooke *P* violet Var
fallax Mass *P* dirty reddish, or variously coloured as mid pale greyish
 slate and marg rose, or mid brown and marg rose and white Included
 under 1347 by Fries

- 1355 **R punctata** Gill (from the dotted pileus, *punctatus*, dotted) *a*
P convex to depressed, rose or purple, punctate with dark
 rufous pointed tubercles, becoming pale, mid darker, marg
 sometimes cream *St* attenuate downwards colour as *P*,
 base whitish, non-punctate *G* adnexed, white to yellowish,
 edge often reddish

Taste mild, sweet Woods, grassy places July $2\frac{1}{2} \times 1\frac{1}{2} \times \frac{3}{4}$ in Var
leucopus Cooke *St* white

- 1356 **R veterinosa** Fr (from its uncertain affinities *veterinosus*,
 languid) *a b*

P hemispherical to slightly depressed, deep to pale rose or
 purplish mid usually yellowish or whitish, marg plane *St*
 equal, even, white *G* adnexed to adnate, crowded, white
 then straw-colour

Suspected poisonous Taste acrid Woods, amongst grass under trees
 July-Sept $2\frac{1}{2} \times 2\frac{1}{2} \times \frac{3}{4}$ in

- 1357 **R integra** Fr (from its frequently perfect form, *integer*,
 entire) *a b c*

P convex to depressed, viscid, red, purplish-crimson or rose with
 marg buff, or tan, clouded crimson, or dull yellowish, clouded
 pale crimson-brown, or pale yellow with ochre mid and purple
 marg, or umber, slate-purple or almost black marg sulcate
 and tubercular *St* somewhat ventricose, white, sometimes
 faintly rose or pale yellowish *G* adnexo-free, very broad,
 subdistant, white, sometimes rose or pale purple with ochreous
 base Pileus sometimes bleaching, almost white

Taste mild to astringent Woods, chiefly pine, oak, common June-Nov
 $5 \times 2\frac{1}{2} \times 1\frac{1}{2}$ in Var *alba* Cooke Whole plant, except gills, cream
 white

- 1358 **R decolorans** Fr (from the changeable colour of the pileus,
decolorans, changing colour) *a b*

P spherical to slightly depressed, orange-red becoming light
 yellow, sometimes olive ochre or variegated pale yellow,
 orange or vermilion *St* rugoso-striate, white, shaded steel-
 grey or faintest yellow-olive *G* rounded-free, white then
 yellowish

Taste mild Woods, pine, mixed, uncommon Aug -Sept $3\frac{1}{2} \times 3\frac{1}{2} \times \frac{3}{4}$ in

- 1359 **R aurata** Fr (from the golden-yellow pileus, *aurum*, gold)
a b c

P hemispherical to plane, mid scarlet, orange or red marg
 lemon sometimes mid sulphur, marg vermilion *St*

obsoletely striate, white to lemon *G* rounded-free, whitish to light yellow, bright lemon at edge *Flesh* white, as *P* under pellicle

Said to be edible, but suspicious Taste mild to slightly acrid, odour pleasant, sweet Woods, oak, uncommon June-Oct $4\frac{3}{4} \times 2\frac{1}{2} \times \frac{3}{8}$ in

1360 R Barlae Quel (after J B Barla) *a b*

P convex to depressed, even, peach-colour, yellow, tinged with orange-red or clouded ochre, dull crimson, reddish or copper-colour, mid darker *St* equal, silky-pruinose, white to faintly yellowish or reddish *G* white, then pallid-ochreous, sometimes orange

Taste mild, sweet, odour of crab, or melilot Amongst grass under trees July-Oct $3\frac{1}{2} \times 1\frac{1}{2} \times \frac{3}{8}$ in

1361 R nitida Fr (from the shining pileus *nitidus*, shining) *a b c*

P convex to slightly depressed, bay-brown-purplish, purplish-crimson, crimson-brown, crimson, or purple-white mid darker, marg tuberculose *St* equal, even, white or faintly clouded rose *G* adnexed, crowded, bright lemon

Suspected poisonous Taste mild to nauseous or somewhat fetid, odour strong, unpleasant, sometimes obsolete Woods, fir, uncommon July-Sept $1 \times 1\frac{1}{2} \times \frac{3}{8}$ in Var *cuprea* W G Sm, *Agaricus cupreus* Kromb *P* copper colour Var *pulchralis* W G Sm, *Russula pulchralis* Britz *P* spotted red or purple at mid, ochreous at marg, or the reverse

1362 R alutacea Fr (from the colour of the gills *aluta*, tanned leather) *a b c*

P hemispherical to depressed, even, crimson, red, rose, purple, black-purple, black, olive, greenish, rarely æruginous, becoming pale, mid often darker marg tubercular *St* equal or slightly clavate, white, usually clouded red, rose or purplish, sometimes deep crimson *G* adnexed or adnate, light yellow to bright deep ochreous *Flesh* white to pale yellowish

Edible Taste mild, pleasant, acrid when old Woods, beech, mixed, common July-Oct $5\frac{1}{2} \times 3 \times 1\frac{1}{2}$ in

1363 R armeniaca Cooke (from the colour of the pileus and the odour, *armeniacus*, of the colour of the apricot) *a b* Very fragile

P convex to depressed, smooth, even, orange, ochre, shading into sienna, sometimes lemon-colour *St* equal or slightly attenuate upwards, smooth, white *G* adnato-rounded, somewhat distant, yellowish to ochre and egg-yellow

Taste mild, odour sweet of apricot Woods, amongst grass under trees Aug $2\frac{1}{2} \times 2\frac{1}{2} \times \frac{1}{8}$ in

1364 R puellaris Fr (from its small size and grace, *puellaris*, girlish) *a b*

P hemispherical, obtuse to depressed, purplish, purple, rose or pink-orange, mid darker, sometimes almost black, becoming pale, not shining, marg tuberculate *St* equal, fragile, white,

becoming yellowish or clouded pale rose *G* adnate or adnexed, thin, crowded, white, then pallid yellow

Taste mild Woods, birch, pine, waysides, amongst *Sphagnum* Aug-Oct $1\frac{3}{4} \times 2\frac{3}{8} \times \frac{5}{8}$ in Sometimes turning pale, foxy and yellow where bruised Var *intensior* Cooke *P* deep purple, mid nearly black Var *roseipes* Cooke *P* rose, rosy orange, becoming blanch'd *St* white, partially rosy, not changing to sienna where bruised All the forms grow in company

1365 *R. ochracea* Fr (from the ochreous pileus) *a*

P hemispherical to infundibuliform, shining, marg sulcate *St* equal, striate, yellow, pale yellowish or white *G* rounded-adnexed, scarcely crowded, furcate at base, ochreous *Flesh* white to ochreous

Taste mild Woods, fir, mixed, grassy places Aug $3\frac{1}{2} \times 1\frac{3}{4} \times \frac{3}{4}$ in

1366 *R. lutea* Fr (from the yellow pileus, *lutus*, yellow) *a c*

P convex to plano-depressed, becoming pale, sometimes white, varying orange with scarlet mid marg striate *St* equal, even, white, shaded greyish, never reddish *G* adnexo-free, crowded, all equal, egg-yellow

Taste mild Odour pleasant of apricot, or almost obsolete Woods, uncommon Jul-Oct $2\frac{1}{4} \times 2 \times \frac{3}{8}$ in

1367 *R. nauseosa* Fr (from the nauseous taste and odour) *a b c*

P hemispherical to depressed, viscid, bright yellow or purplish to livid, becoming pale or whitish, never red or reddish, with mid deep ochre, varying orange or yellow with mid darker, marg tuberculoso-striate *St* slightly striate, equal or sub-clavate, whitish *G* adnexo-free, ventricose, white or yellowish

Taste acid, sometimes mild, odour fetid to feeble, strong, sour, like decaying oat cake Woods, chiefly pine Sept-Oct $2\frac{1}{4} \times 2\frac{1}{2} \times \frac{3}{4}$ in Often resembling 1341 Var *flavida* Cooke *P* clear primrose yellow

1368 *R. vitellina* Fr (from its egg-yellow colour, *vitellus*, yolk of egg) *a c*

P convex to plane, light yellow to pallid marg striato-tuberculate *St* equal, white *G* adnexo-free, equal, distant, somewhat thick, connected by veins, saffron

Taste mild, odour strong Woods, fir, mixed, uncommon Aug-Sept $1\frac{3}{4} \times 1 \times \frac{1}{2}$ in There is a large form with *P* 2-3 in in diam

1369 *R. chamæleontina* Fr (from its changing colour, chameleon-like) *a b*

P convex to slightly depressed, flesh-colour, changing to yellow at mid, then wholly yellow sometimes purple, olive with slate mid, scarlet, crimson, pale rose or vermilion with yellow mid *St* equal, slightly striate, white *G* adnexed, thin, crowded, equal, somewhat forked, yellow

Taste mild, sweet, odour none Woods, pine, beech, downs, rare Sept-Oct $1\frac{1}{2} \times 1\frac{1}{4} \times \frac{1}{4}$ in

L CANTHARELLUS Juss

(From the cup-shaped pileus of some of the species,
Gr *kantharos*, a cup)

Vul obsolete *Hymenophore* continuous and homogeneous with the stem, when latter is present *Pileus* fleshy to membranous *Stem*

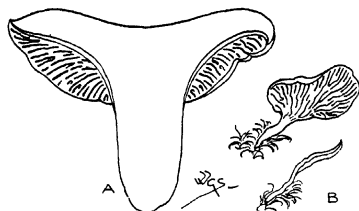


Fig 64 — A section of *Cantharellus cibarius* Fr One half natural size
B *C. muscigenus* Fr entire and in section Natural size

central, excentric or obsolete, exannulate, without cartilaginous bark
Gills decurrent, thick, fleshy-wavy fold-like, somewhat branched, edge obtuse, trama floccose *Spores* white (Fig 64)

The species grow on the ground and on mosses, rarely on wood
Some are edible, others are said to be poisonous *Sporodina*
Aspergillus sometimes grows on *Cantharelli* Species 1370—1388

a *Mesopodæ* *Stem* central

Pileus entire, solid *Stem* fleshy 1370—1376

Pileus somewhat membranous *Stem* tubular, shining 1377—1384

b *Pleuropodæ* Dimidiate *Stem* lateral 1385, 1386

c *Resupinatæ* Resupinate 1387, 1388

a *Mesopodæ*

1370 *C cibarius* Fr (from its use as food, *cibaria*) a b c Egg-yellow

P convex to depressed, turbinate, smooth, marg often repand and irregular *St* solid, attenuate downwards *G* shallow, narrow, much swollen

In troops, clusters or rings Edible Taste pleasant, odour when mature strong of apricots or ripe greengages, sometimes heavy or earthy and somewhat pungent Woods, chiefly beech, oak, chestnut, common July-Dec $4 \times 1\frac{3}{4} \times \frac{7}{8}$ in Sold in Italian markets under the name of *Gallinaccio*, at Cordova under the name of *Encina* in French markets in a dried state on strings Var *rufipes* Gill, red at base of stem There is a white and a yellowish white var

1371 C Friesii Quel (after Elias Fries) *a b c*

P convex to infundibuliform, fleshy, villous, somewhat orange
St solid attenuate downwards, yellowish-white or pale orange
G narrow, yellow or orange

Woods, on elder Aug-Nov $1\frac{1}{2} \times \frac{1}{8} \times \frac{1}{8}$ in Intermediate between 1370 and 1372

1372 C aurantiacus Fr (from its golden yellow colour, *aurantiacus*, orange-yellow) *a b c*

P plane to infundibuliform, somewhat thin, subtomentose marg undulate, at first involute, orange-ochreous, mid sienna
St stuffed to hollow, attenuate downwards, ochreous or reddish, sienna or black at base *G* crowded, thin, deep orange or orange-vermilion

Gregarious Said to be poisonous Taste unpleasant Woods, chiefly pine, heaths, on elder, on grass roots Oct-Dec $3\frac{1}{2} \times 2 \times \frac{1}{2}$ in Possibly a *Chlorocybe* rather than a *Cantharellus* There is a white and a yellowish white var with white gills A mould, *Dactylum dendroides*, the conical stage of *Hypomyces vesiculosus*, is common on the gills of this fungus

1372a C hypnorum Brond (from its habitat, moss, *Hypnum*)

P campanulato-convex then expanded and slightly depressed, marg incurved, minutely downy, pale primrose-yellow to pale ochre *St* slender, slightly flexuous, almost glabrous, yellow, sometimes darker than *P* near base *G* thin edge acute, somewhat crowded branched decurrent, yellow *Flesh* thin, whitish

Cudworth, Yorks Sept 1905 $1\frac{1}{2} \times 1$ in Allied to 1372 but differing in colour, *P* less tomentose and spores smaller

1373 C Brownii B & Br (after J Brown) *a b* Ochreous-white

P convex, obtuse or umbonate, thin, obscurely silky *St* stuffed, equal, somewhat furfuraceous *G* subdecurrent, linear, narrow, subdistant, sometimes branched

Amongst grass Autumn $1 \times 1\frac{1}{2} \times \frac{1}{8}$ in

1374 C carbonarius Fr (from its habitat, burnt wood and earth, *carbo*, charcoal) *a b c*

P convexo-umbilicate to infundibuliform, striato-squamulose, dirty brown to dark purple-slate and black *St* solid, attenuate downwards, often deeply rooting, yellowish-white above, as *P* below *G* narrow, white

Often fasciculate Charcoal beds, burnt ground July-Dec $2\frac{3}{8} \times 1 \times \frac{1}{2}$ in, rooting stem $2\frac{1}{2}$ in Often grows in company with 183 and 277, to which small examples of 1374 are not unlike

1375 C umbonatus Pers (from the sometimes umbonate pileus, *a b c*)

P convex and umbonate to depressed, even, dry, floccoso-silky, cinereous-blackish, somewhat pale slate or umber-slate *St*

stuffed, equal or slightly attenuate upwards, cinereous *G* thin, crowded, white to faintly brownish

Gregarious Taste and odour almost obsolete Woods, amongst mosses, rare April-Oct $1\frac{1}{2} \times 3 \times \frac{1}{2}$ in Sometimes becomes reddish when bruised

- 1376 C albidus** Fr (from the whitish colour, *albus*, white) *a c*
Whitish to faintly yellowish

P subinfundibuliform, irregular, splitting, tough, somewhat faintly zoned *St* solid, equal or attenuate downwards, smooth *G* thin, subcrowded, branched

Taste and odour heavy, earthy Pastures, mossy places, amongst larch and fir Sept-Oct $2 \times \frac{3}{4} \times \frac{1}{4}$ in A form occurs with the gills distant and thick

- 1377 C leucophæus** Nouel (from its white gills, Gr *leukos*, white, *phaino*, to appear) *a c*

P depressed to deeply infundibuliform, smooth, tough, umber *St* slightly attenuate upwards even, colour as *P*, darker at base *G* distant

On the ground Autumn $1\frac{3}{4} \times 1\frac{1}{2} \times \frac{1}{2}$ in

- 1378 C Houghtonii** Phill ex Cooke (after the Rev William Houghton) *a b*

P umbilicato-depressed, smooth, dull white, somewhat flesh-colour, marg waved, irregular *St* attenuate downwards, delicately fibrillose, rooting, colour as *P* *G* narrow, scarcely forked, pallid flesh-colour to salmon

Single or subcespitose On the ground Autumn $2\frac{1}{2} \times 3 \times \frac{1}{4}$ in

- 1379 C tubæformis** Fr (from the trumpet-shaped, mature pileus, *tuba*, a trumpet, *forma* form) *a b c*

P umbilicato-convex to deeply infundibuliform, flocculose, umber or yellowish-umber, sometimes faintly olive-shaded, sometimes perforate to base of *St*, marg waved *St* compressed, lacunose, smooth, orange yellow, paler above and below *G* distant, much branched, yellow-fuliginous or yellowish-umber

Gregarious Woods, often on fallen branches, twigs, rotten wood, and on the ground, common Aug-Nov $4\frac{1}{2} \times 4\frac{1}{2} \times \frac{1}{2}$ in Intermediate forms occur between this and 1380 Var *lutescens* Fr *St* pale yellowish

- 1380 C infundibuliformis** Fr (from the shape, *infundibulum*, a funnel, *forma*, form) *a b c*

P convex, umbilicate to infundibuliform, sometimes pervious to base of *St*, floccoso-wrinkled, yellow-cinereous or fuliginous, paler when dry, sometimes pale purplish-lavender, mid deep sienna-umber, marg undulate *St* even, smooth, light or bright yellow, sometimes pale purplish-lavender above *G* light yellowish to cinereous

Gregarious, somewhat caespitose Suspected poisonous Woods, chips, rotten wood, on the ground, common July-Jan $2\frac{1}{2} \times 2\frac{3}{4} \times \frac{1}{2}$ in Intermediate forms occur between this and 1379

1381 C cinereus Pers (from the cinereous gills) *a b c*

P infundibuliform, often pervious to base of *St*, villososquamulose, marg lobed, waved and very irregular, hoary-fuliginous or streaky umber *St* attenuate downwards, smooth, fuliginous-blackish or gradually dark umber to base *G* somewhat pale lavender

Woods, beech, on the ground Sept-Nov $2 \times 2 \times \frac{3}{8}$ in Must not be confounded with 1782

1382 C cupulatus Fr (from the cup-shaped pileus, *cupa*, a cup) *a b c*

P when young strongly umbonate, then plane to cup-shaped, with um sometimes at bottom of cup, smooth to flocculose, pallid fuscous, pale and slightly rufescent when dry, or pale umber or brownish-buff, marg striate *St* equal, tough, smooth, pale buff or paler than *P* *G* very distant, much branched, grey, lavender or yellowish-brownish

Waste places, on the ground, rare Oct $8 \times \frac{3}{4} \times \frac{1}{8}$ in Must not be confounded with 1448

1383 C Stevensonii B & Br (after the Rev John Stevenson) *a c*

P convex-umbilicate, smooth, buff-white *St* delicately pulverulent, white to buff-white *G* pallid, becoming fuscous in front

Rotten stumps and wood amongst moss Mar-April $\frac{3}{8} \times \frac{1}{2} \times \frac{1}{2}$ in

1384 C replexus Fr (from the margin of the pileus, bent back, repnd) *a b*

P membranous, convex to depressed, subumbonate, fuscous to cinereous or umber-yellowish marg striate *St* smooth, equal or slightly thickened above, white above, lavender below *G* adnate to decurrent, hoary white cinereous or pale purple

On the ground, amongst grass, moss and leaves Oct-Nov $8 \times 1\frac{1}{4} \times \frac{1}{8}$ in
With the habit of a *Mycena* Var *decurv* Fr *P* hood shaped

*b Pleuropoda***1385 C muscigenus** Fr (from the habitat, *muscus*, moss, *gigno*, to bear) *a b c*

P membranous, spatulate, smooth, undulate, fuscous, cinereous-whitish when dry, or umber-yellowish or buff *St* horizontal and continuous with *P*, colour as *P*, villous at base *G* distant, branched, colour as *P*

On larger mosses, *Hypnum*, *Tortula*, sometimes on the ground, uncommon June-Nov $\frac{3}{4} \times \frac{1}{2} \times \frac{1}{8}$ in

1386 C glaucus Fr (from the sea-green colour, *glaucus*, sea-green) *a b c* Grey or indigo-whitish

P membranous, spatulate, silky, zoneless *St* pruinat *G* distant, dichotomous

On the ground, sandy slopes Autumn $\frac{1}{2} \times \frac{3}{8} \times \frac{1}{8}$ in

c Resupinatae

1387 C retirugus Pers (from the reticulate gills, *rete*, a net, *ruga*, a wrinkle) *a b c*

P sessile, inferior, membranous, irregular, repando-lobed, cinereous-fuliginous, or pale fuliginous over biscuit *G* superior, radiating from a central or lateral point, whitish-fuliginous or paler than *P*

On sticks and mosses in bogs, *Hypnum* uncommon April-May
P $\frac{3}{4}$ in in diam Sometimes wholly salmon or biscuit

1388 C lobatus Fr (from the lobed pileus) *a b c* Dark fuscous, pale when dry

P sessile, inferior, membranous, irregular *G* superior, radiating from a central or lateral point, somewhat distant, branched

On mosses in bogs, *Hypnum cuspidatum*, *H revolutus*, *Sphagnum*, mossy soil, uncommon Spring to winter *P* $1\frac{1}{2}$ in in diam

LI NYCTALIS Fr

(From the habit, growing in dark places, *Gr nux*, night)

Val obsolete or indefinite *Hymenophori* continuous and homogeneous with the stem *Pileus* fleshy *Stem* central, exannulate,

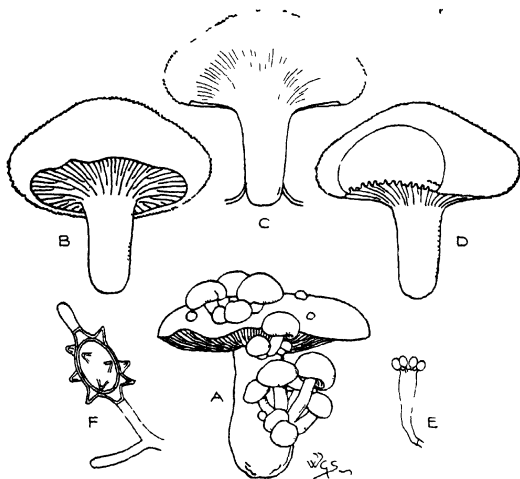


Fig 65—*Nyctalis asterophora* Fr A plants growing on *Russula adusta* One half natural size B C, entire and in section D with slice removed from edge, showing transverse section of vein like gills $\times 2$ E, basidia and spores F conidium $\times 400$

without cartilaginous bark *Gills* fleshy, thick, juicy, obtuse at the edge, distant, adnate *Spores* elliptical, subglobose, colourless Reproduction is also effected by conidia borne on the pileus (Fig 65)

Parasitic on the *Agaricaceæ*, gregarious and fasciculate

Species 1389, 1390

1389 N asterophora Fr (from the minute stellate conidia borne on the pileus, *aster*, a star, *fero*, to bear) *a b c*

P hemispherical, floccoso-pulverulent, white to fawn *St* solid, equal, whitish to brownish *G* very shallow, thick, grey-white

Gregarious or subcapitose Parasitic on 229, 1306, 1307 and a few other species of *Agaricaceæ* frequent July-Nov $\frac{3}{4} \times \frac{3}{4} \times \frac{5}{16}$ in The stellate conidia on the pileus have been named *Hypomyces asterophorus*

1390 N parasitica Fr (from its parasitic habit) *a b c*

P conico-campulate to expanded, obtuse or umbonate, pruinose, whitish fuscous to pale, or whitish-grey with mid, faint sienna *St* fistulose, slightly attenuate upwards, pubescent, white *G* somewhat broad, thick, distant, very pale rose-brown

Gregarious or capitose Parasitic on 1306 1307 1311 and 1341, common Aug.-Nov. $1 \times 1\frac{1}{2} \times \frac{1}{2}$ in Often wholly lavender-steel colour The pileus produces large elliptical smooth conidia

LII MARASMIUS Fr

(From the habit, drying or shrivelling, not becoming putrid, Gr *maraino*, to wither or shrivel)

Val obsolete except in one non-British species—*M subannulatus* and a slight indication in the young of 1404 *Hymenophore* con-

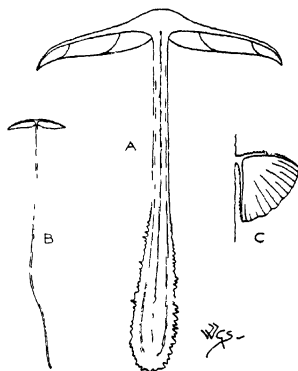


Fig 66 —A section of *Marasmius peronatus* Fr One half natural size "B section of *M epiphyllus* Fr C, ditto *M sporodileucus* B & Br Natural size

tinuous with but heterogeneous from the stem *Pileus* arid, pliant, more or less thin *Stem* central, cartilaginous or horny, absent in 1431 *Gills* usually simple, pliant, somewhat distant, edge acute, entire *Spores* white (Fig 66)

The species are commonly small, thin and epiphytal, those which appear to grow on the ground are generally on putrid leaves or roots of grasses, many have a strong odour, sometimes fetid, or of garlic, never of meal *Marasmius* is closely allied to *Collybia*, but the true *Marasmi* shrivel in dry weather and revive in rain Some are edible, others are esteemed for flavouring, 1391 is dangerous

Species 1391—1431

A *Pileus* fleshy-pliant, at length somewhat coriaceous, sulcate or wrinkled, margin at first involute *Stem* somewhat cartilaginous

a Scroteæ *Stem* solid or stuffed, then hollow, internally fibrous, externally cartilaginous and covered with villous down which is easily removed *Gills* separating-free

Stem woolly or stigose at the base 1391—1393

Stem naked at the base, often composed of twisted fibres

1394—1396

b Terginæ *Pileus* thinner than *a* in section, hygrophanous, even or striate *Stem* rooting, tubular, cartilaginous, not fibrous *Gills* separating-free

Stem woolly downwards, smooth upwards 1397—1400

Stem wholly pruinato-velvety 1401—1405

c Calopodes *Pileus* convexo-involute, then plane or depressed *Stem* curt, not rooting, inserted, often with a basal floccose tubercle *Gills* adnate or subdecurrent

Stem smooth and shining upwards, base simple 1406—1410

Stem velvety or pruinete, base somewhat tubercular

1411—1414

B *Pileus* somewhat membranous, campanulate then expanded, margin at first straight and adpressed to the stem *Stem* horny, fistulose, sometimes stuffed, tough, arid *Mycelium* rhizomorphoid, corticate

d Chordalis *Pileus* campanulate or convex *Stem* rigid, rooting or adnate by a dilated disc 1415—1417

e Rotulæ *Pileus* soon becoming somewhat plane or umbilicate *Stem* filiform, flaccid, inserted at the base Growing on leaves

Stem very smooth, shining 1418—1422

Stem velvety or pilose 1423—1430

C *Pileus* sessile, resupinate

1431

A

a Scrotæ

- 1391 **M urens** Fr (from its burning taste *uro*, to burn) *a b c*

P convex to expanded, even or slightly squamulose or rimosorivulose, pale yellowish or brownish mid darker *St* solid, slightly attenuate upwards, white or yellowish, wholly white-floccose *G* free to remote, pale yellowish-brown to brownish

Gregarious, somewhat crepitose Poisonous Taste becoming very pungent Woods, mixed, grassy places, on leaves, twigs, etc frequent May-Sept $2\frac{1}{2} \times 4\frac{3}{4} \times \frac{1}{8}$ in

- 1392 **M peronatus** Fr (from the base of the stem, as if booted with strigose down, *pero*, a kind of boot) *a b c*

P hemispherical to expanded, slightly wrinkled marg striate, whitish-umber *St* stuffed to hollow, attenuate upwards, light yellow or pale brownish, densely woolly-sheathed at base with whitish or yellowish strigose down *G* adfixed to free, crowded, whitish, yellowish or pale rufescent

Taste acid Woods, oak, amongst leaves, twigs, etc, bramble, beech nuts, common July-Dec $3\frac{1}{2} \times 4\frac{1}{2} \times \frac{1}{8}$ in

- 1393 **M porreus** Fr (from its odour of garlic *porrum*, the leek) *a b c*

P hemispherical to flat, coriaceous-membranous, dull yellowish or pale dull brownish, mid darker, marg striate *St* stuffed to hollow, equal, pubescent, whitish or brownish above, deep purple to almost black below *G* adnexo-free, distant, light yellowish

Odour strong, disagreeable alliaceous Woods, chiefly amongst oak leaves, fir frequent Sept-Dec $2\frac{1}{2} \times 3\frac{3}{4} \times \frac{1}{4}$ in Dried examples more than one hundred years old retain the garlic odour

- 1394 **M oreades** Fr (from its growing in fairy rings, Gr *oreas*, a mountain nymph) *a b c*

P fleshy, hemispherical to plane, obtuse or umbonate, even, smooth, whitish, pale yellowish or brownish, mid darker *St* solid to stuffed, equal, whitish *G* free, broad, distant, whitish or pale yellowish

Gregarious Edible Taste pleasant, odour agreeable, stronger when dry Pastures, lawns, roadsides, common May-Oct $2\frac{1}{2} \times 2\frac{3}{8} \times \frac{1}{8}$ in A colourless ketchup can be made from this Often pickled or dried for winter use

- 1395 **M planeus** Fr (from the—at length flat—pileus, *planus*, flat) *a c*

P convex to plane and depressed, even, mid dark rosy-sienna, marg rufescent or lightish, becoming pale *St* hollow, attenuate downwards, white above, yellowish to brownish below *G* free, distant, yellowish or brownish

Taste mild, sweet Woods, shady places, on the ground Autumn $1\frac{3}{4} \times 1\frac{3}{8} \times \frac{3}{16}$ in

- 1396** *M scorteus* Fr (from its leathery substance, *scorteus*, leathery) *a c* Whitish or white
P convex, somewhat obtuse *St* somewhat fistulose, equal, smooth, fuscous when dry *G* free, broad, ventricose
 Taste mild Woods, moist places, amongst grass under trees Aug-Jan $\frac{3}{4} \times 2 \times \frac{1}{16}$ in Habit that of a small **1394**

b Tergina

- 1397** *M prasiosmus* Fr (from its odour of leek or garlic Gr *prason*, a leek, *osmi* a scent) *a b c*
P campanulate to flat, obtuse, rugulose, pale buff mid pale sienna *St* fistulose pallid above, pale rufous or fuscous below *G* adnexed, somewhat crowded, whitish
 Odour strong Amongst leaves July-Oct $1 \times 2\frac{1}{2} \times \frac{1}{8}$ in
- 1398** *M varicosus* Fr (from the blood-red juice, as if from a swollen vein, *varia*) *a c*
P campanulate to plane umbonate, even, dark rose- or reddish-brown, darker when dry marg pale *St* slightly attenuate upwards, claret-brown, almost black below filled with blood-red juice *G* very crowded, umber-fuscous or somewhat dark dull-purple, darker when dry
 Solitary Odour none Damp mossy places Sept-Oct $1\frac{1}{2} \times 2 \times \frac{1}{16}$ in
- 1399** *M fuscopurpureus* Fr (from the dark purplish colours) *a b c*
 Juiceless
P hemispherical to plane slightly umbilicate somewhat wrinkled, dark to pale purple-brown or tan *St* slightly attenuate upwards, rufous or dark purple, strigoso-downy and rubiginous at base *G* distant, rufescent, purple-brown or slate-purple
 Solitary, caespitose or gregarious Odour none Woods, on sticks dead leaves, beech dead grass etc, frequent Aug-Oct $1\frac{1}{2} \times 1\frac{1}{2} \times \frac{1}{8}$ in
- 1400** *M terginus* Fr (from the leathery substance, *tergum*, hide, leather) *a b c* Juiceless
P campanulate to plane or slightly depressed, shining, flesh-colour to white marg striate *St* slightly attenuate upwards, shining, pallid or sulphury above, reddish below *G* somewhat crowded, pale yellowish, sulphury or salmon
 Solitary or in pairs Odour none Amongst leaves, beech, moss Oct-Nov $1\frac{1}{2} \times 2\frac{1}{2} \times \frac{1}{8}$ in This is *M Stevensii* B & Br
- 1401** *M Wynnei* B & Br (after Mrs Lloyd Wynne) *a b c*
P convexo-plane, subumbonate, lilac-brown, purplish-lavender or purplish-salmon, clouded pale slate *St* attenuate downwards, colour as *P*, or yellowish above to brown and brown-black at base within and without *G* adnexed or adnate, lilac, lavender or salmon
 Gregarious or caespitose Odour none Amongst leaves, twigs, etc, on the ground Aug-Dec $1\frac{1}{2} \times 3\frac{1}{2} \times \frac{1}{16}$ in

1402 M erythropus Fr (from the red stem, Gr *erythros*, red, *pous*, a foot) *a b c* Juiceless

P campanulate to flat, obtuse, slightly wrinkled, pale buff with sienna mid, paler at marg, becoming almost white *St* smooth, equal, dark red *G* veined, not crowded, whitish to pale salmon

Single or somewhat cespitose Odour none Woods, amongst dead leaves, beech, beech mast, near and rarely on stumps, frequent Sept-Oct $2\frac{1}{2} \times 4\frac{3}{4} \times \frac{1}{4}$ in Sometimes becoming purple black in drying

1403 M archyropus Fr (perhaps an error for *argyropus*, Gr *argyros*, silver, *pous*, a foot, in reference to the white-pruinose stem) *a b c*

P hemispherical to plane or slightly depressed, smooth, tan or salmon-shaded, becoming pale *St* pale yellowish or pallid rufescent, white pruinose *G* crowded, narrow, pallid

Cespitose Odour none Amongst leaves rare Oct $1\frac{1}{2} \times 3 \times \frac{1}{16}$ in

1404 M torquescens Quel (from the twisted stem *torqueo*, to twist) *a b*

P convex-plane, rugoso-striate, pallid-whitish mid tawny or fulvous *St* white above to brown or deepest brown below *G* thin, finely serrulate distant, white or whitish

Woods amongst oak leaves, twigs, etc., in moist places Autumn $\frac{1}{2} \times 2\frac{1}{2} \times \frac{1}{16}$ in

1405 M impudicus Fr (from the odour *impudicus*, disgusting) *a b c*

P convex to plane depressed or subumbonate, striato-plicate, bay-brown-rufous or rose-umber mid dark umber becoming pale *St* equal or attenuate downwards velvety, rufous or violaceous-purple, white downy, white when dry *G* free, veined, whitish flesh-colour or salmon *Flush* rose-vinous

Gregarious Odour strong, disgusting like burnt flannel and fatid, more powerful when cut or broken On and about rotten pine trunks on pine leaves Sept-Oct $1 \times 1\frac{1}{2} \times \frac{1}{4}$ in

c Calopodes

1406 M scorodonius Fr (from the odour of garlic Gr *skordion*, a plant with the odour of garlic) *a b c*

P arid, wrinkled crisped, rufous or yellowish-sienna mid vinous, becoming pale to whitish *St* fistulose, equal, horny, rufous, paler above, darker or blackish below *G* adnate, veined, whitish

Usually gregarious Edible, esteemed for flavouring Odour strong Heaths and dry pastures, on twigs and leaves rare Oct $1\frac{1}{8} \times 2\frac{3}{8} \times \frac{1}{16}$ in

1407 M calopus Fr (from the beautiful stem Gr *kalos* beautiful, *pous*, a foot) *a b c*

P rarely depressed, even, smooth, whitish *St* fistulose, slightly attenuate upwards, deep rich brown, paler above *G* slightly emarginate, white

Odour none On twigs, grass roots, etc Autumn $\frac{3}{4} \times 1\frac{1}{8} \times \frac{1}{8}$ in

1408' M Vaillantii Fr (after Leon Vaillant, French botanist) *a b c*

P tough, arid, plicato-rugose, whitish or pale yellowish
St stuffed, attenuate downwards, date-brown, paler or whitish above, blackish below *G* adnate, subdecurrent, broad, distant, white

Odour none On dead wood, fallen twigs, leaves Sept–Oct $\frac{7}{8} \times 1\frac{1}{2} \times \frac{1}{8}$ in

1409 M angulatus B & Br (from the angular folds of the pileus) *a b*

P plicato-angular, fuscous-whitish or yellowish, mid pale brownish *St* slightly enlarged above and below, base hairy, rufescent-grey or white above, brown-black below *G* adnexed, distant, whitish

On grass, submerged rushes, roots, on sandhills Aug $\frac{1}{2} \times 1 \times \frac{1}{2}$ in

1410 M languidus Fr (from its weak substance, *languco*, to be weak) *a*

P slightly fleshy, umbilicate, flocculose, rugoso-sulcate, whitish, light yellowish, or somewhat flesh-colour *St* stuffed, attenuate downwards, naked, pallid to fuscous, white villous at base *G* adnate to decurrent, veined, white

Gregarious Odour none On dead grass, twigs $\frac{5}{8} \times \frac{3}{4} \times \frac{1}{8}$ in

1411 M foetidus Fr (from its fetid odour) *a b c*

P convex to flat, umbilicate, striato-plicate, bay-brown-tawny or yellowish-sienna, mid almost black *St* fistulose, attenuate downwards, sometimes with a small floccose tubercle at base, deep brown, almost black below *G* adnexed to subdecurrent, distant, veined, yellowish-rufescent or salmon *Flesh* claret-brown, becoming pale

Odour strong of burnt flannel or horse radish, very fetid Dead twigs, rotten branches, etc rare Aug–Jan $1\frac{1}{2} \times 1\frac{1}{2} \times \frac{1}{8}$ in

1411a M lagopus Post ex Fr (from the squamulose base of the stem, Gr *lagopus*, hare's foot) *a*

P convex, then plane, even, glabrous, pallid *St* slender, equal, whitish, upper half glabrous, lower half with white spreading sq *G* adnate, slightly ventricose, straw-colour

Gregarious Dead branches Oct $\frac{1}{2} \times \frac{1}{2} \times \frac{1}{10}$ in

1412 M amadelphus Fr (from its nearness to 1413, Gr *an*, together, *adelphos*, a brother) *a c* Pale buff

P arid, convex to plane, umbilicate, striate, mid darker *St* stuffed, equal, sometimes with an almost obsolete tubercle *G* adnato-decurrent, distant

Gregarious Odour none Dead branches, twigs, rare Sept–Dec $\frac{3}{8} \times \frac{1}{2} \times \frac{1}{4}$ in

1413 M ramealis Fr (from its habitat, *ramus*, a branch) *a b c*

P arid, convex to plane, obtuse or depressed, white, mid rufescent *St* stuffed, whitish, rufescent at base, sometimes with a small tubercle *G* adnate, subdistant, whitish

Densely gregarious Odour none Dead twigs, branches, burnt sticks, juniper, willow, bramble, common May–Jan $\frac{1}{2} \times \frac{1}{2} \times \frac{1}{8}$ in

- 1414 **M candidus** Fr (from its white colour, *candidus*, shining white)
a b c

P campanulate to expanded or depressed, becoming sulcato-rugulose, wholly white or with mid pale brown *St* stuffed, base floccose, white with a brownish base or wholly white *G* adnixed, ventricose, distant

Gregarious, twigs, rotten stems, pine, cedar, leaves Sept - Nov $\frac{3}{8} \times \frac{1}{2} \times \frac{1}{32}$ in

B

d Chordalis

- 1415 **M alliaceus** Fr (from its odour of garlic, *allium*) *a b c*

P campanulate to expanded, subumbonate, smooth, dry, striate, white or faintly ochre to fuscous *St* fistulose, minutely velvety, blackish or deep dull purple, paler above *G* adnixed, ventricose, subdistant, whitish or fuscous-whitish

Odour strong persistent Woods, leaves, rotten wood, frequent Aug - Oct $1\frac{1}{2} \times 4 \times \frac{1}{16}$ in

- 1416 **M caulinatus** Fr (from its habitat—growing on stalks and stems, *caulis*, a stem) *a b c*

P striate, bright or dull yellow or yellowish sienna *St* fistulose, equal, floccoso-villous, sulphur above, dark sienna below *G* adnato-decurrent, subdistant, veined, pallid light yellow or pale sulphur

Taste very bitter On fir cones, leaves, etc rare Aug - Nov $1 \times 1\frac{1}{2} \times \frac{1}{16}$ in

- 1417 **M torquatus** Fr (from the sometimes twisted stem *torqueo*, to twist) *a b*

P membranous, campanulate, obtuse, plicato-sulcate, whitish mid bright sienna *St* hollow, smooth, shining, base dilated-tuberculose, ivory *G* adnate, distant, thick, connected by veins forming a collar near *St*, white *Flush* in *P* pale sienna, elsewhere white

Stems and leaves Autumn $3\frac{1}{2} \times 1\frac{1}{2} \times \frac{1}{4}$ in

e Rotula

- 1418 **M rotula** Fr (from the resemblance of the pileus—seen from below—to a little wheel *rota*, a wheel) *a b c*

P arid, hemispherical, umbilicato-depressed, whitish or brownish, marg undulato-crenulate *St* fistulose, horny, often branched, sometimes barren, blackish, paler above *G* adnate to a free collar, broad, few, distant, white

Gregarious or caespitose, with root like branches Dead twigs, stumps, old roots, branches, grass roots, yew, elm, maple oak, common June-Jan $\frac{1}{2} \times 2\frac{1}{2} \times \frac{1}{32}$ in

- 1419 **M graminum** B & Br (from its usual habitat, leaves and stems of grass, *gramen*) *a b c*

P campanulate to expanded, subumbonate, sulcate, pale, rufous-brown or salmon, mid darker *St* shining, hair-like, black,

- whitish above *G* adnate to a free collar, ventricose, distant, veined, white or pale yellowish

On grass, leaves, twigs, etc., uncommon July–Feb $\frac{3}{8} \times 2\frac{1}{4} \times \frac{1}{8}$ in

1420 M androsaceus Fr (derivation uncertain) *a b c*

P arid, convex to expanded, subumbilicate, smooth, striate, white pale buff or somewhat fuscous *St* fistulose, horny, black, paler above *G* adnate, without a collar, distant, whitish to salmon

Woods, leaves, twigs, briar, beech, oak, acorn cups, rushes, fern stems, fir, juniper, larch, common April–Dec $\frac{1}{2} \times 2 \times \frac{1}{4}$ in Sometimes growing from entangled masses of black horsehair-like mycelium Sometimes non pileate stems only produced

1421 M splachnoides Fr (from the gut-like stem, Gr *splagchna*, intestines, *eidōs*, appearance) *a b c*

P convex to flat, umbilicate, smooth, striate, white, mid pale yellowish *St* fistulose, horny, usually red, becoming fuscous or pale above and sienna below, or dark brown *G* sub-decurrent, crowded, anastomosing

Odour none Amongst pine leaves Oct $\frac{1}{2} \times 2 \times \frac{1}{4}$ in

1422 M Curreyi B & Br (after Frederick Currey) *a*

P convex to expanded or plane, sulcate, pallid rufous mid fuscous or yellowish-sienna *St* black, white above *G* attached to a free collar, few, subventricose, veined, pale yellowish

On grass Aug $\frac{3}{8} \times 1\frac{1}{4} \times \frac{1}{8}$ in

1423 M perforans Fr (from the habit, the stem perforating the leaves on which it grows) *a c*

P hemispherical to convexo-plane, not umbilicate, white or whitish, becoming pale rufescent *St* fistulose, tough, equal, bay-brown to black *G* adnate, subdistant, whitish

Odour very fetid, not of garlic Leaves, fir, larch rare Aug–Oct $\frac{3}{8} \times 2\frac{1}{4} \times \frac{1}{8}$ in

1424 M insititius Fr (from the habit—the stem ingrafted on the host-plant, *insero*, to insert) *a b c*

P arid, convexo-plane, subumbilicate, plicato-sulcate, white or purplish-salmon-whitish *St* fistulose, horny, attenuate downwards, rufous to fuscous or sienna, paler above *G* adnate, distant, white or pale salmon-purplish

Gregarious Odour none Leaves, oak, decayed grass, etc., rare Aug–Oct $\frac{3}{8} \times 2 \times \frac{1}{2}$ in

1424a M sclerotipes Bres (from the hard sclerotium at the foot of the stem, *pes*, a foot) *a*

P membranous, convex, then plane, umbilicate, ruguloso-striate, subflocculose, margin reflexed, white, mid yellow *St* filiform, pruinose under a lens, pallid rufescent, apex whitish, base

adnate to a rufescent yellowish sclerotium *G* distant, adnate, white

On the ground, swampy places $\frac{1}{4} \times \frac{7}{8} \times \frac{1}{16}$ in Autumn Sclerotium $\frac{1}{8}$ in long

1425 M Hudsoni Fr (after William Hudson, author of "Flora Anglica") *a b c*

P hemispherical, usually sulcate, pale fuscous-rufescent, rose-purple to white with sienna mid beset with erect purple hairs
St horny, dark purple, paler above *G* adnexed, white

Odour none On fallen holly leaves, frequent Mar-Dec $\frac{1}{2} \times 1\frac{3}{4} \times \frac{1}{8}$ in

1426 M epichloe Fr (from its habit, growing on grasses, *Gr epi*, upon, *chloe*, grass) *a b*

P plano-convex, somewhat papillate, not striate, whitish or pale brownish-yellow, mid darker *St* striate, bay-brown *G* adnexo-rounded, somewhat crowded, pale yellowish, faintly brown

Base of dead grasses, spines of *Robinia* Aug-Oct $\frac{3}{8} \times 1\frac{1}{2} \times \frac{1}{32}$ in

1427 M actinophorus B & Br (from the brownish star on the pileus, *Gr aktis*, a ray of light, *phero*, to bear) *a b c*

P convex, umbilicate, bay-brown or pale sienna, clouded with an indefinite brownish star at mid *St* pallid or brown, paler above *G* few, adnato-decurrent, white or pale yellowish

Fallen twigs, sometimes terrestrial Aug $\frac{1}{2} \times \frac{2}{3} \times \frac{1}{8}$ in

1428 M saccharinus Fr (from the pileus, as if powdered with white sugar, *saccharon*) *a b c*

P campanulate to convexo-expanded, papillate, sulcate, white *St* flocculose to smooth, reddish, pale above *G* adnate, thick, distant, reticulato-wrinkled, whitish

Dead twigs, leaves, rare Aug $\frac{3}{8} \times \frac{3}{4} \times \frac{1}{32}$ in Pileus sometimes marked as in 1427

1429 M epiphyllus Fr (from the habit—growing on leaves, *Gr epi*, upon, *phyllon*, a leaf) *a b c*

P convex to plane, umbilicate, plicato-rugose, white *St* fistulose, subhorny, date-brown or sienna, white above *G* adnate, distant, veined and branched, white

Gregarious Odour none Dead leaves, especially ivy, twigs, etc, oak, beech, poplar, common Sept-Dec $\frac{3}{8} \times 2\frac{1}{8} \times \frac{1}{8}$ in Pileus sometimes marked as 1427, sometimes without gills, or gills replaced by wrinkles

1430 M polyadelphus Cooke (from its growing in crowded patches, *Gr polus*, many, *adelphos*, a brother) *a* White

P hemispherical, sulcate, flocculose *St* tough floccose below *G* subdecurrent, almost fold-like

Densely gregarious Dead leaves, etc Autumn $1\frac{3}{8} \times \frac{1}{2} \times \frac{1}{8}$ in
X 2

C

1431 *M. spodoleucus* B & Br (from its grey pileus and white gills, Gr *spodos*, wood-ash, *leukos*, white) *a b c*

P at first flat, resupinate, then campanulate, at length pendulous, pulverulent or subfurfuraceous, cinereous or pale umber *G* inside bell, few, short, leaving a naked space at apex of bell, interstices even *Flesh* umber

Dead twigs, elm Nov-Mar Diam $\frac{3}{4}$ in The same as *M. Broomei* Berk Sometimes not unlike 1449

LIII LENTINUS Fr

(From the tough, pliant substance, *lentus*, tough or pliant)

Vel ragged-pendulous at the margin of the pileus and more or less fugitive-annulate in the first section, in the other—except 1439—

obsolete *Pileus* fleshy-coriaceous, pliant or hard, persistent *Stem* hard, central, lateral or obsolete, continuous with the hymenophore when present *Gills* concrete with the hymenophore, thin, membranous, unequal, tough, edge acute, often serrate, crenate or irregular, trama none *Spores* white (Fig 67)

Growing on wood, rarely terrestrial, polymorphous, somewhat irregular Distinguished from *Pleurotus* by the hardness of the flesh and the serrate gills Species 1432—1441

MESOPODÆ *Pileus* nearly entire, margin at first inrolled *Stem* distinct

a Lepidæ *Pileus* scaly More or less veiled 1432, 1433

b Pulverulentæ *Pileus* villous or pulverulent 1434—1436

c Cochleatæ *Pileus* smooth 1437

PLEUROTÆ Dimidiate, sessile or furnished with a somewhat lateral stem 1438—1441

MESOPODÆ

a Lepidæ

1432 *L. tigrinus* Fr (from the tiger-like markings of the pileus) *a b c*

P convex, umbilicate to infundibuliform, pale yellowish, clad with umber sc, mid sepiæ *St* solid, equal or attenuate

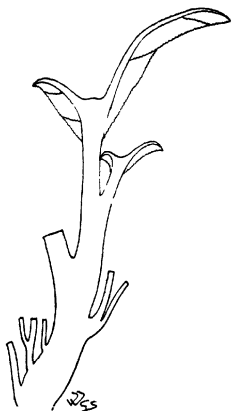


Fig 67—Section of *Lentinus cochleatus* Fr
One half natural size

downwards, central to excentric, fugitive-torn-annulate, pale yellowish *G* decurrent, crowded, white or pale pallid yellowish

Often subgregarious or cæspitose Tasteless, odour strong, acrid or acid
Stumps, oak, ash, poplar, fir, rare April-Oct $2\frac{3}{4} \times 1\frac{1}{2} \times \frac{1}{2}$ in
Var *Dunalii* Fr *P* with adpressed separating, spot like *sc*, then even

- 1433 L. lepidus** Fr (from the scaly pileus, Gr *lepis*, a scale) *a b c*
P convex to depressed, pale yellowish, clad with umber *sc*, mid darker *St* solid, almost woody, irregular, usually somewhat excentric and attenuate downwards, colour as *P*, dark sienna-umber at base, fugitive-torn-annulate *G* decurrent or sinuate, crowded, pale yellowish

Solitary or subcæspitose Odour strong, from pleasant to that of rotten cheese On pine wood, trunks, stumps, fallen pines, elm, railway sleepers, wooden bridges, in houses, cellars, railway tunnels Mar-Oct $5\frac{3}{8} \times 5\frac{1}{4} \times 1$ in Often abnormal and *Clavaria* like Sometimes phosphorescent Var *contiguus* Fr *P* thinner, plano-depressed, even *St* slender, even

b Pulverulenta

- 1434 L. leontopodius** Schulz ex Fr (from a fancied resemblance in the shape and colour of the pileus to a lion's foot Gr *leon*, a lion, *pous*, a foot) *a*

P expanded, depressed, boldly lobed, tan-clay colour, cinnamon or salmon-umber *St* woody, equal, excentric, pulverulent, pale chestnut or umber-salmon, blackish downwards *G* decurrent, veined, white

Gregarious or cæspitose in small clusters Taste pleasant, sweet Decayed willow Autumn $7 \times 3 \times 1\frac{1}{2}$ in

- 1435 L. pulverulentus** Fr (from the pulverulent pileus) *a*

P convex, yellow, ochreous-cinnamon or umber-yellowish, lighter at marg, white-pulverulent *St* solid, excentric, velvety dark umber above, brownish-yellow below *G* crowded, sub-decurrent, white or pale yellowish

Somewhat cæspitose, sometimes connato branched and deeply rooting Dead trunks, pines Oct $1\frac{1}{2} \times 3 \times \frac{1}{2}$ in Var *resinaceus* Fr *P* somewhat gummy villous

- 1436 L. adhærens** Fr (from the sticky gluten of the pileus and stem) *a*

P convex, subumbonate, then depressed to subinfundibuliform, sulcate, umber-tan or umber-yellowish *St* somewhat hollow, rooting, white, then as *P* *G* sinuato-decurrent, thin, white

Taste at length astringent Woods, pine, rare Autumn $1\frac{3}{4} \times 2\frac{1}{2} \times \frac{1}{4}$ in

- 1436a L. suffrutescens** Fr (from the somewhat branching habit, *frutex*, a shrub) *a*

P tough, convex, then infundibuliform, unequal, glabrous, whitish, becoming brown stained *St* elongated, somewhat

branched, woody, pubescent, colour as P G crenato-torn, yellowish

Squared wood in cellars Feb $3\frac{1}{2} \times 6 \times \frac{1}{2}$ in Often abnormal in habit

c Cochleata

1437 L cochleatus Fr (from the shape of the pileus, somewhat shell-like, *cochlea*, a snail-shell) *a b c*

P convexo-umbilicate, subinfundibuliform, at length irregularly lobed, brownish-yellow mid darker *St* usually branched, proliferous and irregularly indented, central to almost lateral, colour as P, sienna-umber at base G decurrent, crowded, lighter than P, or white flesh-colour

Solitary to caespitose proliferous Said to be edible Odour strong of anise, spicy, often scenting the air for long distances Trunks, stumps and on the ground, frequent Aug-Oct $2\frac{1}{2} \times 5 \times \frac{1}{4}$ in Changes to rich brown or blackish in drying

PLEUROTÆ

1438 L scoticus B & Br ex Fr (from its first observed place of growth—Scotland) *a b c*

P convexo-umbilicate to expanded and depressed, pallid to brownish or yellowish-buff, hygrophanous, marg lobed, sinuate or plicate *St* solid, darker than P or yellowish-sienna G decurrent, subdistant, white

Solitary or caespitose Odour none Decayed stumps and rotten wood, furze, birch, spruce Nov-Jan $2\frac{1}{2} \times \frac{3}{4} \times \frac{1}{4}$ in Stem sometimes absent and pileus reniform

1439 L fimbriatus Curr (from the fugitive fimbriate annulus in infancy) *a c*

P convex to deeply depressed, floccose-scaly, fawn-colour or umber-salmon, marg substrigose *St* solid, lateral, rough with reflexed sc, brown-white G subdecurrent, pale brown or salmon-white

Imbricate Stumps, posts Sept $\frac{3}{4} \times \frac{1}{4} \times \frac{1}{4}$ in

1440 L vulpinus Fr (from its strong, often foxy, odour, *vulpes*, a fox) *a b c*

P sessile, reniform-conchate, surface rough and corrugate with raised radiating ribs or adnate teeth, warm yellow-brownish, marg rose flesh-brown, base darker G extended to base, crowded, brownish, pale yellow or pale yellowish-rose

Imbricate Odour sometimes of field mint Trunks, stumps, rare Mar-Oct Diam 5 in Becomes black in drying

1441 L flabelliformis Fr (from the fan-shaped pileus *flabellum*, a small fan, *forma*, form) *a c*

P sessile, reniform, marg corrugate, at length curled backwards, smooth, fawn-colour or yellowish-brown, darker at base *St*

rudimentary *G* extended to base, subdistant, somewhat thick, whitish or faintly shaded as *P*
 Imbricate Old trees, stumps, trunks, rare Feb Diam $2\frac{3}{4}$ in

LIV PANUS Fr

(A name given to an arboreal fungus by Pliny)

Val obsolete *Pileus* fibrous, fleshy-coriaceous *Stem* lateral or none, when present confluent with the hymenophore *Gills* entire,



Fig. 68—A, section of *Panus torulosus* Fr One half natural size
 B section of *P. stypticus* Fr Natural size
 C section of *P. patellaris* Fr Natural size

concrete with the hymenophore, at length coriaceous, edge acute, not serrate *Spores* white (Fig 68)

Growing on stumps and lasting long Species 1442—1447

Pileus irregular *Stem* excentric 1442, 1443

Stem lateral 1444, 1445

Pileus resupinate, sessile or extended behind 1446, 1447

1442 *P. conchatus* Fr (from the shape, like certain shells, *concha*, a shell) *a b c*

P more or less dimidiate, deeply depressed, fleshy, pliant, thin, cinnamon or brownish-yellow, pale sienna-scaly in old examples

St solid, equal or attenuate downwards, brownish-yellow

G deeply decurrent, narrow, whitish or pale flesh-colour, at length yellowish

Cespitose, often imbricate Trunks, stumps, beech, poplar, lime, rare June-Oct $4\frac{1}{2} \times \frac{3}{4} \times \frac{1}{2}$ in *Stem* sometimes branching

1443 *P. torulosus* Fr (from the hairy down on the stem, *torulus*, a tuft of hair) *a b c*

P entire, plane to infundibuliform, compactly fleshy, even, smooth, brownish-yellow, buff or rufescent-livid, sometimes minutely sienna-scaly *St* solid, equal, oblique, grey, violaceous or buff-downy *G* deeply decurrent, subdistant, reddish, tan or yellowish

Cespitose Old trunks, stumps, ash, birch, willow, oak, frequent May-Aug $3\frac{3}{4} \times 1\frac{1}{2} \times \frac{3}{4}$ in

- 1443a P rudis** Fr (from its rough appearance, *rudis*, rough) *a b*
P becoming corky, thin, unequal, bristling with hairs, ochreous-fawn or reddish, lilac shaded, marg incurved *St* short, unequal, shaggy-velvety, ochreous-fawn, hairs lilac *G* very decurrent, very crowded, narrow whitish pink, then pale ochreous-fawn, sometimes lilac shaded *Flesh* white
 Crespitose Odour pleasant of anise Trunks, beech May $2\frac{1}{2} \times 2\frac{1}{2} \times \frac{1}{2}$ in

- 1444 P stypticus** Fr (from its astringent taste, *stypticus*, astringent) *a b c*
P and, thin, reniform, sometimes minutely white-furfuraceous scaly, tan or cinnamon, becoming pale *St* attenuate downwards, pruinose, paler than *G* *G* adnate, thin, crowded, salmon or ochreous-salmon to cinnamon
 Gregarious, crespitose, usually densely imbricate Taste hot, pungent On decaying stumps, trunks, dead trees, etc., fir, alder, beech, oak, common Feb-Dec $1\frac{1}{2} \times \frac{1}{2} \times \frac{1}{2}$ in Becoming wholly rich orange when dry

- 1445 P farinaceus** Fr (from the scurfy pileus, *farina*, meal) *a b c*
P somewhat coriaceous, flexuous, reniform, cinnamon-umber with pale grey scurf *St* colour as *P* *G* adnate distinct, paler than *P* or yellow ochre *Flesh* whitish-grey
 Trunks, branches, fir Dec $1 \times \frac{1}{2} \times \frac{1}{8}$ in Not unlike 1444 or 439 in appearance Var *albidotomentosus* Cooke & Mass *P* clad with short velvety whitish down *St* short or absent Often in imbricate tufts *P* $\frac{1}{4}$ in in diam

- 1446 P patellaris** Fr (from the shape, like a small dish, *patella*) *a*
P sessile, resupinate, coriaceous, at first viscid, umber or dark sepia to buff marg white *St* obsolete or rudimentary *G* concurrent to a subcentral point, and, yellowish to somewhat pale cinnamon
 Branches, cherry, beech Mar $\frac{1}{2}$ in in diam

- 1447 P Stevensonii** B & Br (after the Rev John Stevenson)
P spathulate, olivaceous light yellow *St* attenuate downwards, convex, slightly hispid, golden *G* narrow, entire
 Oak Sept-Oct

LV XEROTUS Fr

(From the dry substance and ear-like shape,
 Gr *xeros*, dry, *ous*, an ear)

Vel obsolete *Pileus* coriaceo membranous *Stem* central, continuous with the hymenophore, which descends into the trama *Gills* adnate decurrent, coriaceous, broadly fold-like, dichotomous, edge entire, obtuse *Spores* white (Fig 69)

Rigid, persistent, analogous with *Cantharellus*, but differing in its leathery substance

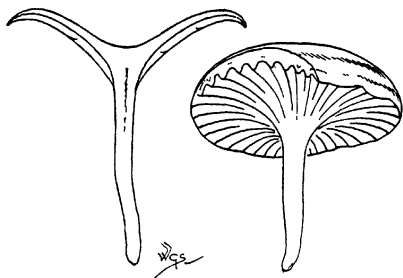


Fig 69 — *Xerotus degener* Fr in section and entire with portion removed to show the gills. Natural size

1448 **X degener** Fr (from its ill-developed condition in comparison with other species of *Xerotus*, *degener*, degenerate) *a b*

P thin, very tough, plano-infundibuliform, somewhat zoned, striate when moist, flocculose when dry, brown-grey to grey, cinnamon, salmon or pale yellowish-brown. *St* solid to stuffed, attenuate downwards. *G* very distant, whitish-grey, yellowish or salmon-white.

Peaty ground, amongst short grass in sterile gravelly places. Jan $1\frac{3}{4} \times 1\frac{1}{4} \times \frac{1}{2}$ in

LVI TROGIA Fr

(After Jacob Gabriel Trog, Swedish botanist)

Pileus membranous, soft, flaccid, arid, persistent, texture fibrillose. *Stem* lateral or none. *Gills* fold-like, venose, edge in the only

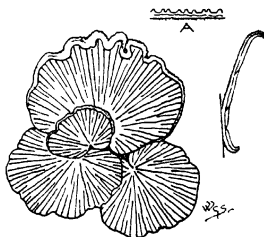


Fig 70 — *Trogia crispata* Fr. entire and in section. Natural size
A, section across gill

- 1443a P rudis** Fr (from its rough appearance, *rudis*, rough) *a b*
P becoming corky, thin, unequal, bristling with hairs, ochreous-fawn or reddish, lilac shaded, marg incurved *St* short, unequal, shaggy-velvety, ochreous-fawn, hairs lilac *G* very decurrent, very crowded, narrow whitish pink, then pale ochreous-fawn, sometimes lilac shaded *Flesh* white
 Crespitose Odour pleasant of anise Trunks, beech May $2\frac{1}{2} \times 2\frac{1}{2} \times \frac{1}{2}$ in

- 1444 P stypticus** Fr (from its astringent taste, *stypticus*, astringent) *a b c*
P arid, thin, reniform, sometimes minutely white-furfuraceous scaly, tan or cinnamon, becoming pale *St* attenuate downwards, pruinose, paler than *G* *G* adnate, thin, crowded, salmon or ochreous-salmon to cinnamon
 Gregarious, crespitose, usually densely imbricate Taste hot, pungent On decaying stumps, trunks, dead trees, etc., fir, alder, beech, oak, common Feb-Dec $1\frac{1}{2} \times \frac{1}{2} \times \frac{1}{2}$ in Becoming wholly rich orange when dry

- 1445 P farinaceus** Fr (from the scurfy pileus, *farina*, meal) *a b c*
P somewhat coriaceous, flexuous, reniform, cinnamon-umber with pale grey scurf *St* colour as *P* *G* adnate distinct, paler than *P* or yellow ochre *Flesh* whitish-grey
 Trunks, branches, fir Dec $1 \times \frac{1}{2} \times \frac{1}{8}$ in Not unlike 1444 or 439 in appearance Var *albidotomentosus* Cooke & Mass *P* clad with short velvety whitish down *St* short or absent Often in imbricate tufts *P* $\frac{1}{4}$ - $\frac{1}{2}$ in in diam

- 1446 P patellaris** Fr (from the shape, like a small dish, *patella*) *a*
P sessile, resupinate, coriaceous, at first viscid, umber or dark sepia to buff marg white *St* obsolete or rudimentary *G* concurrent to a subcentral point, arid, yellowish to somewhat pale cinnamon
 Branches, cherry, beech Mar $\frac{1}{4}$ in in diam

- 1447 P Stevensonii** B & Br (after the Rev John Stevenson)
P spatulate, olivaceous light yellow *St* attenuate downwards, convex, slightly hispid, golden *G* narrow, entire
 Oak Sept-Oct

LV XEROTUS Fr

(From the dry substance and ear-like shape,
 Gr *xeros*, dry, *ous*, an ear)

Vel obsolete *Pileus* coriaceo membranous *Stem* central, continuous with the hymenophore, which descends into the trama *Gills* adnate decurrent, coriaceous, broadly fold-like, dichotomous, edge entire, obtuse *Spores* white (Fig 69)

Rigid, persistent, analogous with *Cantharellus*, but differing in its leathery substance

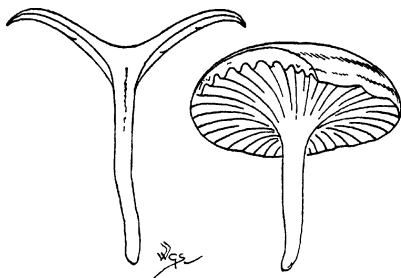


Fig 69 — *Xerotus degener* Fr in section and entire with portion removed to show the gills Natural size

1448 **X degener** Fr (from its ill-developed condition in comparison with other species of *Xerotus*, *degener*, degenerate) *a b*

P thin, very tough, plano-infundibuliform, somewhat zoned, striate when moist, flocculose when dry, brown-grey to grey, cinnamon, salmon or pale yellowish-brown *St* solid to stuffed, attenuate downwards *G* very distant, whitish-grey, yellowish or salmon-white

Peaty ground, amongst short grass in sterile gravelly places Jan $1\frac{3}{4} \times 1\frac{1}{4} \times \frac{1}{2}$ in

LVI TROGIA Fr

(After Jacob Gabriel Trog, Swedish botanist)

Pileus membranous, soft, flaccid, and, persistent, texture fibrillose
Stem lateral or none *Gills* fold-like, venose, edge in the only

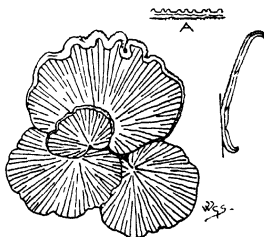


Fig 70 — *Trogius crispus* Fr entire and in section Natural size
A, section across gills

European species obtuse, crisped, not channelled as in non-European species *Spores* white (Fig 70)

Growing on wood, becoming dry and reviving with moisture

1449 **T crispa** Fr (from the crisped gills) *a b c*

P cup-shaped, expanded, resupinate, light-yellowish-rufescent, zoned rufous, marg whitish, sometimes almost white *St* obsolete or rudimentary *G* vein-like, dichotomous, narrow, white to steel-grey

Gregarious, imbricate Logs, branches, twigs, beech, birch, uncommon Jan-Dec Diam 1½ in Sometimes almost wholly white

LVII SCHIZOPHYLLUM Fr

(From the gills, split longitudinally at the edge

Gr schizo, to split, *phyllon*, a leaf)

Vel obsolete *Pilus* thin, and *Stem* lateral or none *Gills* coriaceous, channelled longitudinally with edges revolute *Spores* white (Fig 71)

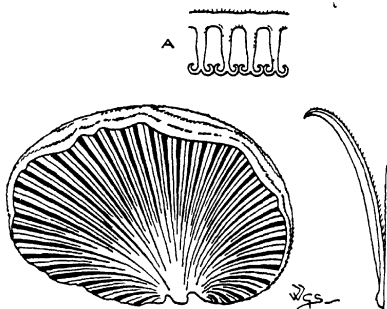


Fig 71.—*Schizophyllum commune* Fr, entire and in section
Natural size A section across gills X 10

1450 **S commune** Fr (from its being common in certain countries, *communis*, common) *a b c*

P and, at first cup-like, then expanded, reniform or excentric, resupinate, downy, white or umber-white, commonly zoned greyish *St* rudimentary or none *G* splitting, the edges revolute, fuscous-grey to purplish, cinereous or clay-white to tan-salmon

Said to be edible Sold in a dry state in China for soup, 800 lbs were exported from Auckland, New Zealand, to China in 1872 Dead wood, rotten trunks, logs, water butts, beer casks, wood in greenhouses, horse chestnut, beech, alder, dry hay in silos, rare in Britain May Jan Diam 2 in

LVIII LENZITES Fr

(After Harold Othmar Lenz, German botanist)

Vel obsolete *Pileus* corky or coriaceous, texture and, floccose, dimidiate, sessile *Stem* lateral or none *Gills* coriaceous, firm,

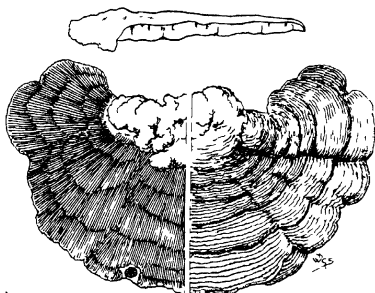


Fig 72—*Lenzites betulina* Fr. entire and in section. Lower surface on left upper on right. One third natural size

sometimes simple and unequal, sometimes anastomosing and forming pores behind, edge obtuse to acute, trama floccose, similar to the pileus (Fig 72)

Growing on wood, persistent. Allied most nearly to *Trametes* and *Dædalea* amongst the *Polyporaceæ*. Species 1451—1455

On wood of deciduous trees 1451, 1452

On coniferous wood 1453—1455

1451 L. betulina Fr (from its frequent habitat, birch trunks, *betula*, birch) *a b c*

P firm, rigid, tomentoso-woolly, flat, lobed, white, greyish, buff or umber-whitish, margin and *z* darker. *G* reaching the base, simple, branched or anastomosing, edge acute. *Flesh* white

Often imbricate. Stumps, logs, gate posts, birch, oak, bird cherry, alder, perennial, common. Jan–Dec. Diam $\frac{1}{2}$ in. When young small, resupinate, with gills radiating from a central point. Often green with unicellular *Algae*. Surface and coloration of pileus like that of 2001

1452 L. flaccida Fr (from the flaccid substance) *a b c*

P thin, easily bent, flat, lobed, whitish to dingy, zoned same colour. *G* reaching the base or an excentric point, broad, crowded, simple or branched towards base, not anastomosing, white to salmon. *Flesh* white

Stumps, beech. Mar–Jan. Diam 4 in. Pileus often green as in 1451

- 1453. L. sæpiaria** Fr (from the habitat, fences, *sæpis*, a hedge) *a b c*
P thin, flat, lobed, strigoso-tomentose to squamulose, zoned, tawny-yellow to brown, black when old *G* reaching to and anastomosing at the base, rigid, firm, yellowish to umber
Flesh tawny to dark sienna

Often imbricate Trunks, fences, pine Jan-Dec Diam 5 in

- 1454 L. abietina** Fr (from its habitat, firs, *abies*) *a b c*

P thin, flat, tomentose, becoming smooth, umber or yellowish-rich-brown or deep umber-sienna, zoned dark umber, marg bright sienna-yellow, or wholly vinous *G* reaching the base, distant, simple, unequal, not anastomosing but torn into teeth at the base, salmon or yellowish-brown

Imbricate Chiefly dressed fir, deul, trunks, branches Oct Diam 3½ in
 Sometimes remaining resupinate

- 1455 L. heteromorpha** Fr (from its varied shapes, Gr *heteros*, different, *morphe*, shape) *a b c*

P gibbous, rugose, thin to thick, yellowish- or buff-white, or colour of washleather *G* reaching the base, branched, crowded, often broken into teeth sometimes effused, colour as *P*

Imbricate Fences, sticks, chips, bark, pine Oct Diam 3 in, sometimes effused to 7 in or more

FAM II POLYPORACEÆ

Hymenium inferior, in resupinate species superior, consisting of tubes with poriform orifices which are round or angular, sometimes sinuous or torn

Fleshy, coriaceous or woody fungi, intermediate between *Agaricaceæ* and *Hydnaceæ*, connected with the former by *Trametes* and *Dædalea*, and with the latter by *Fistulina* Species **1456—1686**

The sequence of the genera and species is almost identical with the latest views of Fries as expressed in his *Hymenomyces Europæi*, 1874 An exception is made in the genus *Polyporus*, which is here broken up into four genera—*Polyporus*, *Fomes*, *Polystictus* and *Poria*, as given by Cooke in 1885 and 1886, in his *Præcursoris ad Monographia Polyporum*, in *Gravilla*, xiii, pp 80 and 114, xiv, pp 17, 77 and 109, and xv, p 19, with additions and corrections on p 50 Cooke based his work on the *Novæ Symbolæ Mycologicæ* of Fries, published in 1851, but in this Fries only suggested that one section of *Polyporus* should be elevated to generic rank, viz *Polystictus* Saccardo, in his *Sylloge Fungorum*, vii, 1888, immediately adopted Cooke's views It is in deference to the laborious work of Cooke that the old genus *Polyporus* is here broken up into four

KEY TO THE GENERA

Terrestrial

- | | | | |
|--|--|----|---------------|
| Tubes easily separable from the hymenophore | Stem central | 59 | BOLETUS |
| Tubes not separable, very large with transverse dissepiments | Stem central | 60 | STROBILOMYCES |
| Mostly growing on trunks, stumps or wood | | | |
| Stipitate to sessile | Tubes small, without dissepiments | | |
| | Substance fleshy, hard, tough or somewhat soft | 62 | POLYPORUS |
| Sessile | | | |
| | Substance fleshy, juicy | 61 | FISTULINA |
| | Substance woody | 63 | FOMES |
| | Substance coriaceous, spongy or membranous | | |
| | Pores round | 64 | POLYSTICTUS |
| | Pores oval or elongate | 66 | TRAMETES |
| | Pores sinuous | 67 | DÆDALEA |
| | Sessile to resupinate | | |
| | Substance cartilagino-soft to subgelatinous | 68 | MERULIUS |
| Resupinate | | | |
| | Substance thin, woody or waxy | 65 | PORIA |
| | Hymenophore covered with granules | 69 | POROTHELIUM |

LIX BOLETUS Dill

(From the clod-like shape of the pileus Gr *bolos*, a clod)

Vel universal, forming an annulus, perfect to imperfect or obsolete *Pileus* fleshy *Stem* central, fleshy continuous and homo-

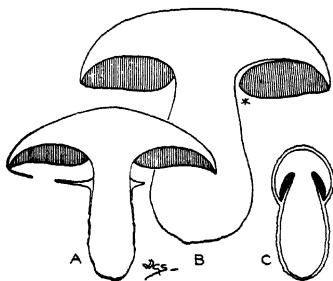


Fig. 73.—A section of *Boletus luteus* L. showing gelatinous membranous veil. B, section of *B. edulis* Bull. showing at * tube separating from hymenophore. C section of *B. cyanescens* Bull. young example showing universal floccose scaly veil. One third natural size.

geneous with the hymenophore, annulate to simple *Tubes* distinct from the hymenophore, connected in a stratum, the surface of which

is dotted with their orifices or pores, easily separating from the hymenophore and from one another, the mouths of the tubes or pores are round or angular, in the subgenus *Gyrodon* sinuous or gyroso-plicate, trama none. *Spores* usually fusiform, rarely oval or roundish, white, rosy, yellowish or brown (Fig 73)

Terrestrial, fleshy, putrescent fungi, mostly edible, a few poisonous

Species 1456—1515

SUBGENUS 1 **EUBOLETUS** *Pores* round or angular, not sinuous or gyroso-plicate. *Trama* not descending between the tubes

1456—1513

EUCHROÆ *Tubes* usually yellow, not white or grey

a Viscapelles *Stem* solid, not bulbous or reticulate, except 1458. *Tubes* adnate, decurrent in 1457, 1467 and 1468. *Pores* rarely sinuate, of one colour. *Spores* usually yellowish

1456—1468

b Subtomentosæ *Pileus* villous when young, rarely at length becoming smooth. *Stem* not bulbous or reticulate, here and there rugose or striate. *Flesh* rarely changing colour. *Tubes* adnate, of one colour

1469—1477

c Subpruinosa *Pileus* pruinose to smooth. *Stem* equal, even, not bulbous or reticulate. *Tubes* adnate, yellowish

1478—1481

d Calopodes *Stem* stout, at first bulbous, reticulate, reticulations usually red

1482—1488

e Edules *Stem* stout, bulbous, not reticulate or dotted red except 1489, 1490, 1491 and 1493. *Tubes* somewhat free, adnate in 1494. *Pores* not red. *Flesh* scarcely changing colour. *Taste* pleasant

1489—1497

f Lurida *Pileus* pulvinate, compact then soft. *Stem* stout at first, curt and bulbous, then elongate and clavate to nearly equal, somewhat reticulate or dotted. *Tubes* rounded-free. *Pores* red to red-brown. *Flesh* juicy. Suspected poisonous. Growing chiefly in woods of deciduous trees

1498—1500

TEPHROLEUCÆ *Tubes* at first white or grey

g Favosa *Tubes* large, angular, unequal, often shortened near the stem, adnate, not rounded-free. *Spores* brown

1501—1504

h Versipelles *Tubes* free, ventricose. *Pores* minute, round, equal. *Spores* ferruginous

1505—1508

i Hyporhodie *Tubes* whitish to pale salmon. *Spores* rosy to white flesh-colour

1509, 1510

j Cariosa *Stem* not reticulate, stuffed to hollow. *Tubes* white to light yellowish. *Pores* minute, round. *Spores* white

1511—1513

SUBGENUS 2 **GYRODON** *Tubes* short, somewhat adnate. *Pores* sinuous or gyroso-plicate

1514, 1515

SUBGENUS 3 **BOLETINUS** *Trama* descending somewhat between the tubes, the hymenophore is therefore not smooth after their removal, in this respect *Boletinus* resembles *Strobilomyces*. The relationship between *Boletus* and *Boletinus* is similar to that between *Polyporus* and *Trametes* 1515a

SUBGENUS I **EUBOLETUS**

(From being typical examples of the genus, *Gr eu*, well)

EUCHROÆ

a Viscapellis

1456 **B luteus** L (from the yellow tubes, *luteus*, yellow) *a b c*

P gibbous, pulvinate to convex, deep vinous brown, covered with dark purplish gluten which is at first continuous over the tubes, forming a V. *St* equal, dull light yellowish. *A* large, membranous, white to dark purplish. *T* yellow or brownish-yellow. *Po* minute

Edible Woods, pine common July-Nov $5 \times 2\frac{3}{4} \times \frac{1}{8}$ in

1457 **B elegans** Schum (from its elegance) *a b c*

P convex, dark rich yellow, shaded orange. *St* sulphur to orange above *A*, darker below. *A* broad, fugacious, sulphur. *T* decurrent, sulphur to bright yellow. *Po* minute

Woods, chiefly larch, oak pine, common June-Oct $4\frac{1}{2} \times 2\frac{3}{4} \times \frac{1}{8}$ in

1458 **B flavus** With (from the yellow pileus *flavus*, light yellow) *a b c*

P convex or pulvinate, full luminous yellow, covered when young with claret-brown gluten. *St* equal, reticulate, yellow above, brownish-yellow below. *A* membranous, fugacious, white to yellow-white. *T* adnate, bright yellow or brownish-yellow. *Po* larger than in 1456 and 1457

Woods, mixed, common Aug-Nov $4\frac{1}{2} \times 3\frac{1}{2} \times \frac{1}{8}$ in

1459 **B flavidus** Fr (from the yellowish pileus, *flavidus*, light yellowish) *a b c*

P convex, obtuse, brownish-yellow or pale yellowish-buff. *St* equal, whitish-yellow or straw-colour, granular above the brownish viscid *A*. *T* adnate to slightly decurrent, yellow, somewhat sulphur. *Po* angular. *Flesh* pale ochre

Woods, pine July-Oct $2\frac{1}{2} \times 2\frac{1}{2} \times \frac{1}{4}$ in

1460 **B collinitus** Fr (from the gluten-besmeared pileus *collino*, to besmear) *a b c*

P pulvinate to expanded and slightly depressed brownish-buff, sometimes pale, covered with rich vinous-brown gluten. *St* attenuate downwards, rooting, white, becoming brownish. *T* adnate to subdecurrent, pallid to yellow. *Flesh* white

Solitary Edible Woods, fir Nov $3\frac{3}{4} \times 2\frac{1}{2} \times 1\frac{1}{4}$ in When young resembles 1456

1461* B granulatus L (from the granulate pores and stem) *a b c*

P convex, obtuse, luminous- or cinnamon-yellow, covered with claret-brown, vinous or rich sienna gluten *St* white-sulphur above, brownish below, scabrous with honey-coloured granules *T* pale sulphur to orange *Po* simple, exuding a thin gummy juice which dries in granules *Flesh* pale sulphur

Commonly gregarious, sometimes caespitose Odour rank, heavy, disagreeable, like that of 410 Woods, fir, rare July-Nov $3\frac{3}{4} \times 2\frac{1}{4} \times \frac{3}{8}$ in Sometimes springing from yellow mycelium Much eaten by squirrels

1462 B tenuipes Mass (from the slender stem, *tener*, slender, *pes*, a foot) *a b*

P convex-pulvinate, smooth, becoming minutely fibrillose, slightly to very viscid, red- or rose-purplish over yellow, or red-buff, shaded Indian red *St* attenuate downwards, somewhat striate above, slightly to very viscid, yellow, vinous in mid, becoming rufescent, or pale yellow above to gradually vinous below *T* large, angular, bright yellow *Flesh* pale vinous under pellicle, white in mid, pale buff-vinous in *St*

Taste mild Woods Oct $1\frac{3}{4} \times 2\frac{3}{4} \times \frac{3}{8}$ in

1463 B bovinus L (from the buff-reddish colour of the pileus, as of the ox, *bos*) *a b c*

P convex to expanded, buff, rose-buff or orange-buff, membrane of *P*, involute and overlapping the tubes *St* equal, even, ochre-rose or pale buff, rhubarb tinted at base *T* decurrent, ochre, olive-ochre or rose- or yellow-buff *Po* compound *Flesh* pale buff, sometimes changing to cobalt

Gregarious, subcaespitose Taste mild, odour pleasant Woods, chiefly pine, uncommon Sept-Nov $4\frac{1}{2} \times 2\frac{3}{4} \times \frac{1}{2}$ in

1463a B pusio Howse ex B & Br (from its small size, *pusio*, a little boy) *a*

P hemispherical, pulvinate, pulverulent, reddish-buff *St* slightly thickened downwards, plicate, pulverulent, dull yellowish-white, white above, becoming blackish *T* dull sulphur-white

1464 B badius Fr (from the colour, *badius*, bay-brown) *a b c*

P pulvinate to flat, villos-viscid, claret-brown, umber or dark Indian-red-brown *St* equal or subclavate, pruinose, minutely granular, lighter than *P* and streaky *T* adnate to slightly sinuate, whitish dull olive *Po* angular *Flesh* rose under pellicle of *P*, cobalt over *T*

Single or caespitose Woods, chiefly pine, frequent Aug-Nov $5 \times 4 \times 1\frac{3}{8}$ in

1465 B paludosus Mass (from growing in bogs, *paludes*) *a b*

P convex to flat, glabrous, dark burnt-sienna or vinous red-sienna, mid darker, paler when dry *St* attenuate downwards, smooth, paler than *P*, or burnt-sienna with crimson, or dull

dark sienna *T* adnate to subdecurrent, yellow to olive-green or whitish-green *Po* large, angular, compound *Flesh* unchanging, salmon-white

Gregarious, not crepitose Bogs, amongst *Sphagnum* Sept $4\frac{1}{2} \times 5 \times \frac{1}{2}$ in Resembles a slender 1464, but flesh does not change colour

- 1466 **B rutilus** Fr (from the reddish pileus, *rutilus*, golden-red) *a*
P pulvinate, glabrous, brownish-red or umber, not dark
St equal, glabrous sulphur above, pale claret-brown below
T sinuato-adnate, sulphur *Po* minute

Woods, oak Oct $1\frac{1}{2} \times 1\frac{1}{2} \times \frac{1}{2}$ in Must not be confounded with 1472 or 1474

- 1467 **B aurantiporus** Howse ex Cooke (from the golden-yellow pores, *aurantius*, orange) *a b*

P convex, expanded, sometimes umbonate, ferruginous, orange-sienna, claret brown or buff *St* equal, orange above, with large purple-crimson reticulations, sulphur and pale yellow below *T* deeply decurrent, yellow to bright orange, becoming brownish when bruised *Po* broad angular *Flesh* usually pale rose, sometimes pale yellowish, changing to pale orange-red

Under or near trees, vews Aug. - Oct $3\frac{1}{2} \times 3\frac{1}{2} \times \frac{1}{2}$ in Howse considered this plant to be allied to 1469

- 1468 **B piperatus** Bull (from the peppery taste *piper*, pepper) *a b c*
P pulvinate to expanded dull ochreous-orange or yellow-ochre
St equal or attenuate downwards sienna-orange *T* decurrent, sienna with ochre and vermilion, or rich sienna-scarlet *Flesh* deep sulphur, orange in stem

Sometimes crepitose Poisonous Taste very acrid Woods, mixed, under lime-, frequent Aug. - Nov $2\frac{1}{2} \times 2 \times 1\frac{1}{2}$ in Often small Springing from yellow mycelium

b Subtomentosæ

- 1469 **B variegatus** Swartz (from the different colours of stem, pileus and tubes) *a b c*

P pulvinate, yellowish-sienna or yellowish-brown, clouded sienna or vinous, margin extended beyond *T*, inrolled *St* equal, bright yellow to dull ochre, shaded orange, burnt-sienna or vinous *T* yellow, or orange- or olive brown, not dark *Po* minute *Flesh* yellowish, changing sparingly or wholly to blue, sometimes unchanging

Tasteless, odour unpleasant Woods, chiefly pine, heaths, frequent July - Nov $5\frac{1}{2} \times 2\frac{1}{2} \times 1\frac{1}{2}$ in

- 1470 **B sulphureus** Fr (from the sulphur-colour) *a b c* Wholly sulphur-colour

P hemispherical to expanded-obtuse *St* ventricose, with rooting red base *T* adnate-decurrent, at length greenish *Po* minute, compound *Flesh* becoming blue

Crepitose, sometimes in clusters of fifty or more Tasteless Sawdust, stumps Sept - Nov $4 \times 2\frac{1}{2} \times 1\frac{1}{2}$ in Sometimes changing to reddish

where touched Mycelium woolly, matting sawdust, sulphur Pileus some times 9 in in diam

1471. **B striæpes** Secr (from the striate stem, *stria*, a line, *pes*, a foot) *a b*

P pulvinate to expanded, orange-buff, shaded umber, marg paler or whitish *St* slightly ventricose, velvety, sulphur-white above, umber below, broadly striate with small brown dots *T* yellow, yellow-greenish, sulphur or apricot-sulphur *Po* minute *Flesh* white, or faintly shaded pale yellowish or brownish, sparingly changing to blue

Woods, rare Oct $2\frac{3}{4} \times 2\frac{1}{2} \times 1$ in

- 1472 **B chrysenteron** With (from the golden-yellow flesh *Gr chrusos*, gold, *entera*, inward parts) *a b c*

P convex to plane or slightly depressed, yellowish, umber or crimson-brownish over tan, often cracked, interstices crimson-red *St* equal, fibroso-striate, tan-white or buff, speckled crimson or sulphur above, spotted and streaked below, base umber *T* sulphur to yellow-olive *Po* somewhat large, angular *Flesh* yellow-white, pale rose under pellicle of *P*, pale blue near *T*

Edible Woods, mixed, beech, hedges, open ground common July-Nov $3\frac{1}{2} \times 2\frac{1}{2} \times \frac{1}{2}$ in Var *nanus* Mass *P* olive *St* yellow above, crimson below *Flesh* changing to red when cut *P* 1 in in diam

- 1473 **B sanguineus** With (from the blood-red pileus *sanguis* blood) *a b*

P pulvinate, dry, almost velvety *St* equal rose above, sometimes reticulated crimson, tan or orange below, clouded crimson *T* adnate to subdecurrent, dull ochre to bright or olive-yellow *Flesh* yellowish-white, changing to blue

Woods, rare July-Sept $4 \times 3\frac{1}{2} \times \frac{3}{8}$ in Pileus sometimes 9 in in diam, sometimes very small

- 1474 **B subtomentosus** L (from the somewhat tomentose pileus) *a b c*

P pulvinato-expanded, umber or yellowish-umber, sometimes with a red line at marg, often cracked, interstices yellow *St* equal, ribbed-sulcate, slightly scabrous, bright yellow, sometimes clouded crimson *T* rounded-adnate, bright yellow, shaded pale olive-umber *Po* large, angular *Flesh* whitish-yellow, sparingly changing to blue

Woods, mixed, oak, beech, sometimes from interior of beech-nuts, common July-Nov $3\frac{1}{2} \times 3\frac{1}{2} \times \frac{3}{8}$ in Pileus sometimes $7\frac{1}{2}$ in in diam Var *radicans* Mass *P* olive ochre *St* fusiform, colour as *P* *T* colour as *P* Taste insipid to bitter

- 1475 **B spadiceus** Fr (from the date-brown colour of the pileus, *spadix*, a palm branch) *a b*

P pulvinate, rich yellowish-sienna, clouded red-brown or vinous *St* equal to clavate, flocculoso-furfuraceous, whitish or pale luminous-yellow, olive-shaded above, clouded umber and

vinous below *T* sinuato-adnate, pale yellow-olive, shaded greenish *Po* minute, somewhat round *Flesh* pale sulphur or buff-white, with a faint blue line over *T*

Taste insipid or pleasant, with a peculiar lasting acid flavour Woods, mixed July–Nov $4\frac{1}{8} \times 2\frac{3}{4} \times 1\frac{1}{4}$ in

1476 B radicans Pers (from the rooting stem, *radix*, a root) *a b*

P pulvinate, yellowish-umber to umber or olive membrane of *P* overlapping *T* and involute *St* usually attenuate downwards, pale primrose to apricot-yellow and dark ochre, pruinose, rose and sienna clouded where touched *T* adnate, colour as *St*. *Po* unequal, large *Flesh* yellowish white, sometimes changing to pale blue or slate

Taste somewhat bitter Woods Sept $3\frac{1}{2} \times 2\frac{1}{2} \times \frac{3}{4}$ in Often confused with 1472

1477 B rubinus W G Sm (from the ruby-coloured tubes) *a b c*

P pulvinate to flat, whitish orange-umber or yellow-fuscous *St* equal or slightly attenuate downwards, yellow clouded crimson *T* adnato-decurrent, carmine *Po* compound *Flesh* unchanging, vivid yellow

Taste mild Woods, roadsides under trees, oak, beech Aug–Sept $2\frac{1}{2} \times 1\frac{1}{2} \times \frac{7}{8}$ in

c Sulpruinose

1478 B versicolor Rostk (from the change of colour in the flesh) *a b*

P pulvinate to convexo-plane bright deep crimson-purple *St* slightly pruinose smooth, colour as *P* or orange-brown, lighter above and below, sometimes sulphur above *T* adnato-rounded orange *Po* large, angular *Flesh* whitish yellow, changing to cobalt and vinous

Said to be edible Taste slightly disagreeable or none odour strong and rank, like 2086 Woods beech, gardens Aug–Sept $2\frac{1}{2} \times 2\frac{1}{2} \times \frac{5}{8}$ in

1479 B pruinatus Fr (from the pruinose pileus) *a b*

P convex to flattish, rigid, yellowish vinous-umber *St* somewhat ventricose or clavate even, smooth, yellow, finely lined with crimson *T* yellow *Po* minute, round *Flesh* whitish, sparingly changing to blue

Grassy places Autumn $2\frac{1}{2} \times 2 \times \frac{3}{4}$ in

1480 B purpurascens Rostk (from the purple pileus and stem) *a*

P convex to plane, dry, glabrous, deep brownish-purple or deep purple-crimson *St* attenuate downwards, rooting, even, glabrous, colour as *P*, sometimes yellowish above and below *T* dull yellow *Po* minute *Flesh* dull grey or yellowish, streaked or marbled

Woods, pine Autumn $3\frac{1}{2} \times 2 \times \frac{1}{2}$ in

1481 B parasiticus Bull (from the parasitic habit) *a b c*

P obtuse, plane, silky to smooth, yellowish-brown *St* slightly attenuate downwards, colour as *P*, or lighter, with pale vinous-sienna streaks *T* adnate to subdecurrent, colour as *St*,

sienna-shaded *Po* compound *Flesh* yellowish-white or pale vinous, orange-brownish at base of *St*

Parasitic on 2086 and 2087 Often overlooked, as the colour of *P* agrees with that of the peridium of host Sept–Oct $2\frac{1}{2} \times 2 \times \frac{1}{2}$ in

d Calopodes

1482 B appendiculatus Schæff (from the membrane of the pileus overlapping at the margin) *a*

P pulvinate, expanded to plane, pubescent, crimson, bay-brown rose, indian-red or vinous-buff *St* subventricose, somewhat rooting, yellowish-white, buff below, sometimes crimson in middle *T* adnate, sulphur-greenish, clouded pale indigo where touched *Po* minute, angular *Flesh* pale sulphur, becoming pale blue

Edible Woods, uncommon Oct $4\frac{1}{2} \times 3\frac{1}{2} \times 1$ in

1483 B variegatus B & Br (from the varied colours) *a b*

P pulvinate, subtomentose, olivaceous marg involute *St* clavato-bulbous, pubescent and rufescent above yellowish downwards *T* rounded-free, yellow *Po* minute *Flesh* pale yellowish, marbled, dark purple under membrane of *P*

Woods, uncommon Aug–Sept $1\frac{1}{2} \times 2\frac{3}{8} \times \frac{1}{2}$ in

1484 B calopus Pers (from the beautiful stem *Gr kalos*, beautiful, *pous*, a foot) *a b c*

P globose to pulvinate, subtomentose umber, rose-umber or olive-umber *St* ventricose or nearly equal, somewhat rooting, reticulate and carmine above, dark umber below, or wholly crimson or yellow above, crimson in middle, yellow and brown at base *T* rounded-adnate, whitish-orange *Po* minute, angular *Flesh* white, changing to bright blue, or variegated blue, green, carmine and umber, crimson at base

Taste bitter Woods, mixed, frequent July–Nov $4\frac{1}{2} \times 2\frac{1}{2} \times 1\frac{1}{2}$ in

1485 B olivaceus Schæff (from the olive-coloured pileus) *a b*

P convex, even, becoming smooth, yellowish olive-umber to olive *St* subclavate, salmon sometimes white at apex, yellow-brown below, with salmon-pink or rose granular streakings or reticulations *T* adnate, greenish-yellow *Po* minute, unequal *Flesh* salmon-umber-whitish, sometimes changing to blue

Almost tasteless, odour somewhat strong and disagreeable Woods, beech, uncommon Aug–Sept $2\frac{1}{2} \times 2 \times \frac{1}{2}$ in

1486 B regius Kromb (from the regal aspect) *a b*

P globose to pulvinate, minutely tomentose, bright rose, pale purple, pale claret, buff or vinous-yellow-umber *St* subventricose to almost equal, pale or bright yellow, dull purple, red-crimson, orange or olive at base *T* rounded-adnate, deep

golden-yellow *Po* minute *Flesh* yellow and pale salmon, sometimes changing to pale blue

Solitary or gregarious Edible Open places in woods Aug $5 \times 5 \times 1\frac{1}{2}$ in

1487 B crassus Mass (from the stout stem, *crassus*, thick) *a b*

P convex to expanded, irregularly waved, densely tomentose, white, then pale yellow-brown or fawn colour *St* at first almost globose, paler than *P*, white-reticulate above, base almost white *T* free, or nearly so, white then primrose *Flesh* white, then pale primrose or pale biscuit

Taste sweet, nutty odour strong, acid Under trees in pastures, beech Aug $4 \times 4 \times 2\frac{1}{2}$ in Compare 1490 and 1496

1488 B pachypus Fr (from the thick stem, *Gr pachus*, thick, *pous*, a foot) *a b c*

P pulvinate, pale warm umber, umber or yellowish-umber or biscuit-colour *St* equal to clavate or bulbous, pale salmon-rose above and below, rose in middle or yellow above, and umber and whitish-yellow below *T* rounded-adnate, bright yellow to green *Flesh* whitish, pale vinous under membrane of pileus and at base of stem, changing sparingly and slowly to blue or unchanging

Taste not unpleasant Woods, chiefly pine Sept–Oct $4\frac{1}{2} \times 3\frac{1}{2} \times 1\frac{1}{2}$ in

..

c. Edulis

1489 B candicans Fr (from the white pileus and stem, *candicans*, whitish, shining-white) *a b c*

P convex, brownish- or yellowish-white, or almost white *St* obese, clavate or bulbous, reticulate to smooth, ochre- or primrose-white, pale umber below *T* adnato- or adnexo-rounded, sulphur to primrose *Flesh* ochre-white, changing to bright blue or indigo

Solitary or 2–3 connate Open places, under oaks, in company with 1499 June–Oct $5\frac{1}{2} \times 3\frac{1}{2} \times 1\frac{1}{2}$ in This is *B. alphonseus* Schæff

1490 B edulis Bull (from its edible properties) *a b c*

P pulvinate to expanded and flat, pale umber, yellowish- or purplish-umber or tan, rarely sooty, margin usually lighter or white *St* obese to clavate and equal, pale umber-white, buff-white or white above and tan below, white-reticulate above *T* adnexo-rounded, white to greenish-yellow *Flesh* unchanging white, sometimes salmon-white under pellicle of *P*

Woods, especially beech, common June–Nov $8\frac{1}{2} \times 5 \times 1\frac{1}{2}$ in The cepé of French markets, the *Funzo porcino*, *Porcino Boli porcino* or *Ferre* of Italian markets The ‘sullös’ of Mart Ep in 60 Sometimes attacked by a yellow parasitic mould, *Hypomyces chrysospermus*, and then not edible Var *lactipes* Mass *St* even, white There is also a wholly white var

1491 B æreus Bull (from the copper-coloured stem, *ærs*, copper) *a b c*

P pulvinate, smooth, umber, somewhat olive or blackish *St* subclavate to equal, somewhat reticulate, pale buff or yellow

above, rosy-umber below *T* sulphur-primrose *Po* minute
Flesh pale sulphur, vinous under pellicle of *P*

Woods Autumn $4\frac{1}{2} \times 4\frac{1}{2} \times 1\frac{1}{4}$ in

1492 B carnosus Rostk (from the fleshy pileus, *carnō*, flesh) *a*

P pulvinate, smooth, crimson-brown *St* bright yellow above, orange below or warm brown, somewhat finely streaked red and crimson *T* ochre-greenish or dark yellow *Po* somewhat large, angular *Flesh* pale ochre

Woods Autumn $4 \times 2\frac{1}{2} \times 1\frac{1}{4}$ in

1493 B vaccinus Fr (from the reddish colour of the pileus, *vacca*, a cow) *a b*

P convex, expanded, minutely tomentose, rich orange-umber, brighter at marg or deep chestnut *St* yellowish, reddish or brownish, not dark *T* adnate-rounded, white to sulphur and bright yellow *Po* minute *Flesh* white to pale sienna-yellowish, vinous under pellicle of *P*, becoming pale blue

Woods, beech Autumn $2\frac{1}{2} \times 2 \times \frac{3}{4}$ in

1494 B Rostkovii Fr (after Friedrich Wilhelm Rostkovius) *a b c*

P convex to plano-expanded minutely tomentose ochre, orange, or dull olive-brown or rufous *St* attenuate downwards, obconic, warm umber, buff or pale reddish-yellow *T* adnate, yellow, sulphur or yellow-green *Po* irregular, compound *Flesh* buff- or vinous-white becoming reddish-brown under pellicle of *P*, here and there blue

Under trees, beech Aug $3\frac{1}{2} \times 1\frac{1}{4} \times 1$ in

1495 B fragrans Vitt (from the pleasant odour) *a*

P pulvinate, subtomentose, yellowish rosy-umber *St* somewhat clavate, sometimes fusiform-rooted yellowish, pale vinous-clouded below *T* cream-yellowish *Po* minute, round *Flesh* buff- or yellow-whitish, changing to pale blue

Single or caespitose Woods, oak Sept-Oct $5\frac{1}{2} \times 3\frac{1}{2} \times 1\frac{1}{8}$ in

1496 B impolitus Fr (from the dull colour of the pileus *impolitus*, unpolished) *a b*

P pulvinate, sometimes cracking into areolæ, flocculose, dull warm- or dull yellowish-umber *St* clavate pubescent, yellowish- or olive-white above, brown or olive-brown below *T* rounded-free sulphur to yellow and dull olive *Po* minute *Flesh* dull biscuit-colour sparingly changing to blue

Edible Taste and odour pleasant Woods, mixed rare June-Sept $5\frac{1}{2} \times 3\frac{1}{2} \times 1\frac{1}{2}$ in Pileus sometimes 9 in in diam

1497 B æstivalis Fr (from its time of growth *æstivalis*, pertaining to summer) *a b*

P convex to expanded, almost white, shaded pale buff, yellowish or brownish, marg often waved *St* clavate, even, smooth, pale yellow or pale buff above, vinous-brown below *T* pale to bright yellow then sulphur-greenish *Flesh* white to pale

yellowish, sometimes with a pale blue line over the T, sometimes vinous at base

Edible Taste and odour pleasant Woodland pastures, roadsides, field sides June-July $5\frac{1}{2} \times 3\frac{3}{4} \times 2$ in Pileus sometimes 1 ft 2 in in diam

f Lurida

1498 B satanas Lenz (from its fancied bad qualities) *a b c*

P subviscid, smooth, tan-white, shaded grey-white *St* carmine above, dark carmine reticulate, pale yellowish, dull brownish or crimson below *T* sulphur-ochre *Po* minute, carmine *Flesh* whitish, clouded rose and bright blue

Said to be poisonous, probably harmless Taste mild Woods, mixed, oak, woody and chalky places, rare July-Oct $6 \times 3\frac{1}{4} \times 2\frac{3}{4}$ in

1499 B luridus Schæff (from the lurid colours) *a b c*

P subviscid, tomentose, dark umber or dark olive-brown *St* scabrous, dull ochreous-orange, speckled crimson *T* pale yellow *Po* round, dark dull crimson or dull dark red *Flesh* pale ochre, changing to dark dull blue, stem streaked blue and red, crimson-streaked at base

Said to be poisonous Taste pleasant, sweetish, odour not unpleasant Woods, mixed, woody places, common June-Nov $4\frac{1}{2} \times 4 \times 1\frac{3}{8}$ in Var *erythropus* Fr, smaller than type, stem within and without blood-red

1500 B purpureus Fr (from the sometimes purple pileus, stem and flesh) *a b*

P pulvinate, subvelvety, dry, clouded dull claret-purple, and red or brown *St* stout, yellow, base deep claret-purple, sometimes wholly ochre, variegated with purple veins and dots, or red-reticulate above *T* adnato-rounded, yellow *Po* crimson *Flesh* yellow changing to blue, deep claret-purple, or wholly crimson in *St*

Taste mild Woods, oak June-Oct $4\frac{3}{8} \times 3\frac{3}{4} \times 1\frac{3}{8}$ in

TEPHROLEUCÆ

g Favosa

1501 B larinus Berk (from the habitat, larch plantations *larix*, larch) *a b c*

P convex, rarely umbonate, somewhat squamulose with V, viscid, olive-white, shaded pale olive, pale ochre, or pale slate-purple, marg white at first, appendiculate with V *St* equal, annulate, cribose above A, pitted below, whitish, pale slate-purple above, pale sepia-streaky below, or pale claret-brown above and pale buff below, or pale claret-crimson-patchy *T* adnato-decurrent, nearly white, pale whitish-purple *Po* compound *Flesh* white, unchangeable

Frequent July-Sept $3\frac{1}{2} \times 2\frac{1}{2} \times \frac{3}{8}$ in

1502. B rubiginosus Fr (from the reddish-brown pileus, *rubigo*, rust) *a b*

P convex, pubescent to glabrous, red-brown *St* subclavate, wholly reticulate, whitish to pale brownish-biscuit *T* adnate, unequal, white *Flesh* unchanging white

Scattered Under beeches Autumn $3\frac{1}{2} \times 2\frac{3}{4} \times 1$ in

1503 B viscidus L (from its viscosity) *a b c*

P pulvinate, smooth, pale yellowish-brown or pale buff, clouded pale greenish or umber, marg sometimes appendiculate with V *St* equal, vaguely reticulate above somewhat annulate, pale yellowish-brown, slightly streaked, somewhat speckled above *T* adnate, pale grey then umber and sienna, shaded umber or livid

Woods, larch, rare July-Aug $5 \times 2\frac{3}{4} \times 1$ in Intermediate forms occur between this and 1501

1504 B porphyrosporus Fr (from the purplish spores Gr *porphureos*, purple, *spores*, seed) *a b*

P convex, minutely velvety, dark olive, yellowish umber or umber, blackish when bruised *St* equal, minutely punctate, brown-yellowish, shaded olive not dark *T* adnate brownish-yellow, faintly salmon or grey brown when bruised *Flesh* white, becoming blue near *T*

Solitary or subcaespitose Odour strong of fish Woods, mixed, open grassy places under trees Aug-Sept $5 \times 4\frac{3}{4} \times 1\frac{1}{4}$ in

h Versipellis

1505 B versipellis Fr (from the changeable colours of the pellicle *verto*, to turn, *pellis*, the stem) *a b c*

P pulvinate, dry, tomentose, becoming even, red-orange, rufous-brown or fuliginous marg appendiculate with the V *St* attenuate upwards, yellowish-white, rough with small brown scabrous sc *T* adnato-rounded to free or sinuate yellowish- or pale brownish-white *Flesh* whitish becoming clouded pale grey

Edible Woods, heaths frequent July-Oct $4\frac{1}{2} \times 6 \times 1\frac{1}{2}$ in This is the "Rosetto" of Italian markets Gathered for food by Italians in Epping Forest as the "Rosett"

1506 B scaber Bull (from the rough stem, *scaber*, rough) *a b c*

P pulvinate, smooth, viscid when moist, at length rugulose or rivulose, usually umber, but sometimes olive-umber, red, orange, fuliginous, cinereous-blackish or white *St* attenuate upwards, white or yellowish-white, striated and sprinkled with minute brownish or grey sc, sometimes imperfectly granuloso-annulate *T* adnato-rounded or sinuate, white or yellowish-white, becoming dingy brownish *Flesh* whitish, changing to pale slate-colour

Edible Woods, common June-Nov $4\frac{1}{2} \times 7\frac{1}{2} \times 1$ in This is the *Porcinello* or *Albarello* of Italian markets Var *nivus* Fr, white Some

times attacked by a parasitic mould, *Hypomyces chrysospermus*, and then not edible

- 1506a B rugosus** Fr (from the wrinkled stem, *rugosa*, a wrinkle) *a b*
P pulvinate, even, glabrous, dry, marg naked, brown *St* somewhat hollow, costato-rugose, slightly scabrous, somewhat ventricose, almost equal, paler than *P* *T* free, ivory, with a faintly brownish shade *Po* round, minute *Flesh* changing from white to brown or sometimes black

Autumn $2\frac{3}{8} \times 4\frac{1}{2} \times 1\frac{1}{8}$ in Sowerbys t 421 does not agree with his original drawing, and the section behind is from another drawing, not of this species

- 1507 B duriusculus** Schulz ex Fr (from the harsh and rough stem, *duriusculus*, somewhat harsh and rough) *a b*

P globose to pulvinate, smooth, viscid when moist, whitish-tawny, dull chestnut, olivaceous, yellowish-brown or vinous-umber *St* ventricose, attenuato-rooting, whitish or yellowish, densely brown or grey punctato-squamulose *T* adnexo-free, white then yellowish or yellow to olive-brownish *Po* bright yellow *Flesh* white, becoming rose-colour, coppery-red, rose- or red-slate or violet-greyish

Edible Woods Aug-Oct $3\frac{1}{2} \times 6\frac{1}{2} \times 1\frac{1}{8}$ in

- 1508 B cruentus** Vent (from the change of colour in the flesh to blood-red, *cruor*, gore) *a b*

P convex to plane, smooth to rugulose, brown-yellowish or olive, salmon-red or vinous where bruised *St* clavate, attenuate to a rooting base, longitudinally scabrous, yellowish-white or yellow below and orange above *T* adnate, pale yellow *Flesh* pale yellowish or pale sulphur changing to rose or vinous darker at base of *St*

Odour fetid Under beeches Aug $5\frac{1}{2} \times 3\frac{1}{2} \times 1\frac{1}{8}$ in

1 *Hyporhodium*

- 1509 B felleus** Bull (from the bitter taste *fel*, gall) *a b c*

P pulvinate to expanded or slightly depressed, at first slightly mealy, then smooth, even, pale umber, clouded darker *St* clavate, brown-reticulate above, paler than *P* *T* long, adnate to adnexo-rounded *Po* angular *Flesh* white, more or less changing to salmon

Said to be poisonous Woods, fir, beech July-Dec $4\frac{3}{8} \times 4 \times 1$ in

- 1510 B alutarius** Fr (from the colour of the pileus, *aluta*, tanned leather) *a b*

P pulvinate to expanded, velvety then glabrous, umber-yellowish, not dark, clouded slightly darker *St* clavate, somewhat even, rugulose above, colour as *P* *T* short, sinuato-adnate, clouded brownish *Po* round *Flesh* yellowish-white, almost unchangeable

Taste watery, mild Woodland pastures rare Oct $2\frac{3}{8} \times 3\frac{3}{8} \times \frac{5}{8}$ in

Cariosa

- 1511. B cyanescens** Bull (from the change of colour in the flesh to blue, *cyanus*, dark blue) *a b c*

P convex, floccoso-scaly, brownish-ochre *St* equal to clavate, spongy-cavernous, dry, cracking, slightly annulate when young, squamose, corticate, colour as *P* *T* adnato- or adnexo-rounded, yellowish-white or faintly-shaded olive *Flesh* yellowish- or brownish-white, changing to blue

Taste none Woods, mixed, rare July-Sept $3\frac{1}{2} \times 3\frac{1}{2} \times 1\frac{1}{2}$ in Whole plant dry like 1516, drying in decay, not decomposing Wholly veiled in infancy by a thick floccose coat Changes to sulphur yellow when dry

- 1512 B castaneus** Bull (from the colour of the pileus, *castanea*, the chestnut) *a b c*

P convex, expanded, velvety, sometimes becoming repand, yellowish-white or vinous-cream then cinnamon *St* clavate, velvety, corticate cracking transversely, stuffed to hollow, colour as *P* *T* free whitish-sulphur to pale primrose, becoming clouded or spotted pale brownish *Flesh* white

Woods, pastures under trees, amongst brambles, rare Aug-Oct $3\frac{1}{2} \times 2\frac{3}{4} \times \frac{3}{4}$ in

- 1513 B fulvidus** Fr (from the yellowish-brown or tawny pileus, *fulvus*, tawny) *a b*

P convex to plane smooth, shining, rigid, yellowish- or brownish-orange *St* equal to subclavate cracking, stuffed to hollow, colour as *P* paler below *T* free, white to sulphur yellowish *Flesh* white to yellowish

Taste sweet, nutty Under trees, oak Aug-Sept $2\frac{3}{4} \times 2\frac{3}{4} \times \frac{3}{4}$ in

SUBGENUS 2 **GYRODON**

(From the gyroso-toothed tubes, Gr *odous*, 1 tooth)

- 1514 B caespitosus** Mass (from the caespitose habit) *a*

P hemispherical, tomentose, dry olivaceous-umber marg pale rose *St* solid, even, glabrous, yellow, base dull red *T* very short *Po* yellow *Flesh* firm, yellow, changing to dark blue or bluish-black, then rufous fading to dull white, dingy-red at base

Densely fasciculate, stems more or less connate at base Under trees, amongst grass Aug $2\frac{1}{2} \times 2\frac{1}{2} \times 1$ in

- 1514a B Sistotrema** Fr (from the resemblance in the tubes to those of *Sistotrema*) *a*

P fleshy at mid, thin at marg where it is flattened above and below, glabrous, dry, rufous- or yellowish-brown *St* equal or slightly enlarged below, even, pallid rufous or as *T*, tinged pale brown *T* adnate, short, unequal, yellow-tawny or pale yellowish-sulphur *Po* becoming gyroso-plicate *Flesh* white clouded pale sulphur

Dry woods Autumn $2\frac{3}{8} \times 2\frac{3}{4} \times \frac{3}{8}$ in Var *brachyporus* W G Sm (*Boletus brachyporus* Kostk) *P* white *St* white, pale sulphur below *T* pale sulphur *Flesh* sulphur white Changing to pale green where touched

1515 **B McWeeneyi** W G Sm (after Dr Edmunds McWeeney),
Gyrodon rubellum McWeeney, a

P convex, even, smooth, dry, red mid purplish, marg
 yellowish or clouded and streaked bright crimson on a bright
 yellow ground *St* equal, smooth, even, solid, bright yellow
T pale yellow *Po* bright yellow *Flesh* unchanging bright
 yellow

On the ground amongst moss Oct $\frac{3}{4} \times \frac{1}{4} \times \frac{3}{8}$ in

SUBGENUS 3 BOLETINUS

(Diminutive of *Boletus*)

1515a **B cavipes** Opat (from the hollow stem, *cavus*, hollow, *pes*, a
 foot) a

P convex, umbonate, dry, floccoso-scaly, dull yellow, yellow or
 pale buff *St* hollow, floccose and pale buff below white A,
 white above *T* decurrent, somewhat large, compound, pale
 sulphur *Flesh* white, clouded pale buff

Autumn $3\frac{1}{2} \times 3\frac{3}{8} \times \frac{1}{8}$ in

LX STROBILOMYCES Berk

(From a fancied resemblance in the pileus to a pine-cone,

•• Gr *strobilos*, a pine cone, *mukes*, a fungus)

Veil white, floccose, appendiculate at the margin of the pileus
 and forming a fugitive annulus on the stem *Pileus* fleshy, tough,

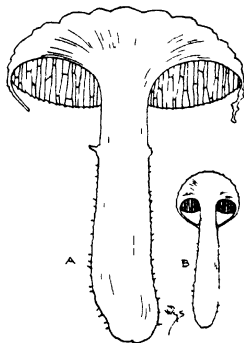


Fig. 74 — *Strobilomyces strobilaceus* Berk.

A, section, showing ruptured veil B ditto young example showing veil intact

One third natural size

broken into scales, hymenophore continuous and homogeneous with
 the stem *Stem* solid *Tubes* very large, anastomosing (Fig 74)

1516 'S strobilaceus Berk (from the top of the pileus, clad with pine-cone-like scales, Gr *strobilos*, a pine cone) *a b c*

P globose to pulvinate, broken into large thick scales, sc dark umber on a pale greyish ground *St* clavate, sulcato-reticulate above, coarsely fibrillose, white above, vinous-brown below *T* adnate, with transverse dissepiments, white, shaded dull brownish *Flesh* sienna-brown

Woods, under fir, oak, lime, amongst bracken, open grassy places Aug - Oct 6 x 7½ x 1½ in

LXI FISTULINA Bull

(From the pipe-like character of the tubes *fistula*, a pipe)

Val obsolete *Pileus* fleshy, juicy *Stem* obsolete *Tubes* cylindrical, free from each other as are the spines in *Hydnaceæ*, but adnate with the substance of the pileus (Fig 75)

Growing on wood Intermediate between *Polyporaceæ* and *Hydnaceæ*

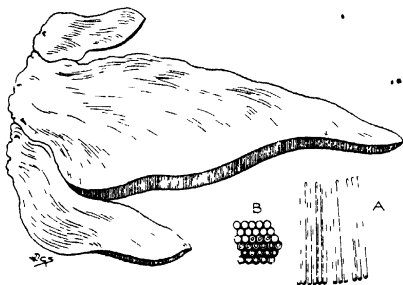


Fig 75—*Fistulina hepatica* Fr One third natural size
A tubes X 1 orifices of ditto X 6

1517 'F hepatica Fr (from the liver-like appearance Gr *hepatikos*, of the liver) *a b c* Imbricate

P roundish, dimidiate or subspathulate, rough with minute points, dull pale purplish-red, blood-red, liver-colour or chocolate, becoming blackish *T* ochre-whitish, then yellowish-red *Po* distinct *Flesh* thick, juicy, red-streaked like beet-root, distilling a red juice

Edible when quite ripe Taste somewhat acid Trunks, oak, ash, walnut, willow, beech, chestnut, hornbeam, elm Aug - Oct Diam 1 ft 4 in Sometimes attaining a great size with a weight as much as 19 lbs, unlike many *Polyporaceæ* it perishes in about three weeks after its first appearance The "liver" or "beef steak" fungus said by Hartig to be the cause of a deep red brown decomposition in oak *Ceromyces (Ptychogaster) hepaticus* is said by Saccardo to be an imperfect state of this

LXII POLYPORUS Mich

(From the many pores or mouths of the tubes of the hymenium,
Gr *polus*, many, *poros*, a pore)

Pileus woody, corky or somewhat soft, not zoned, flesh thick
Stem long, short or none, when present simple *Hymenophore*
descending and forming a trama between the tubes *Tubes* connate

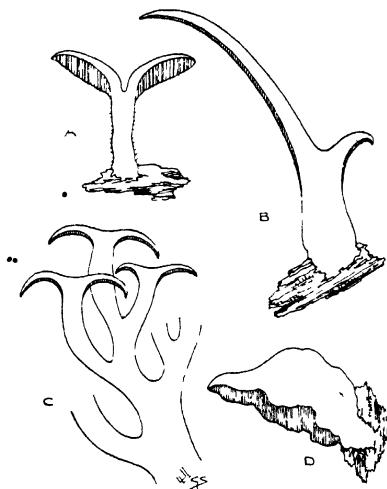


Fig 76—Sections of A *Polyporus entus* Perk. B *P. strobilatus* Fr. C *P. entus* Fr. D *P. entus* Fr. One half natural size

with the substance of the pileus and not separable from it or from each other, extended with round, angular or torn pores, not normally stratose (Fig 76)

Persistent fungi, mostly growing on wood. Odour, if any, slightly acid. A few are said to be edible. Species 1517a—1575

MESOPODE *Pileus* entire or excentric. *Stem* distinct, vertical, central, simple, self-coloured, not blackish at the base

a *Carnosæ* *Pileus* fragile or pliant, dull in colour, scaly or floccose, not coriaceous, zoneless. *Spores* white, growing on the ground. Autumnal. Edible. 1517a, 1518

- b Lentæ* *Pileus* fleshy-pliant, then coriaceous, zoneless *Spores* white Growing on trunks Persistent

Pileus lustrous, scaly or villous 1519, 1520

Pileus even, smooth 1521, 1522

- c Spongiosæ* *Pileus* spongy-soft, hygrophanous, tomentose, then corky or coriaceous, regular, irregular lobed or dimidiate *Stem* short, irregular *Pores* irregular, changing colour *Spores* white Mostly terrestrial, lasting through the winter in a dead state, not perennial 1523, 1524

- d Subcoriaceæ* *Pileus* at first indurated, arid when full grown corky or coriaceous, tomentose, velvety *Stem* definite, rarely lateral *Pores* at first sprinkled over with a white bloom Substance ferruginous Terrestrial or on trunks, more regular, rigid and persistent than *Spongiosæ* Not reviving 1524a—1526

PLEUROPODÆ *Pileus* pliant or corky, horizontal, not circular *Stem* simple, lateral or excentric, black at the base Growing on wood

- a Lentæ* *Pileus* fleshy-pliant, zoneless *Stem* excentric, blackish at the base *Tubes* short Substance somewhat fibrous, pallid 1527—1534

- b Suberosolignosæ* *Pileus* thick hard zoneless *Stem* stout, vertical, of the same colour at the base *Tubes* elongated 1535

MERISMATÆ With many branching stems proceeding from a common trunk, each as a rule bearing a pileus or pileolus The largest of fungi are found in this group

- a Carnosæ* Tufts central, stipitate, springing from a common more or less concrete base *Pileus* fleshy firm floccoso-fibrous, zoneless, not coriaceous-indurate *Tubes* separating from the pileus *Spores* white Partly terrestrial Autumnal Edible 1536—1539

- b Lentæ* From the tough pileus Tufts lateral, substipitate, in many imbricate layers *Pileus* fleshy-pliant, then subcoriaceous, fragile when old, more or less zoned, fibrous within *Stems* more or less connate, or growing from a common tuberous base Growing at the base of trunks *Spores* white Autumnal, not lasting till the following spring Not edible 1540—1542

- c Cascosæ* Tufts sessile on the stems of trees, commonly dimidiate, but in horizontal positions, central and expanded on all sides Springing from a tubercular base into numerous pileoli *Pileus* cheesy, at first soft and juicy, then arid, without a pellicle, zoneless *Tubes* separating Growing in spring and summer, soon decaying Acid 1543—1546

- d Suberosæ* Tufts somewhat sessile, lateral or central • *Pilei* or *Pileoli* corky or coriaceous, persistent, tough, free at the base, not effused Substance floccose, somewhat soft, suitable for tinder *Tubes* adnate On trunks close to the ground Not edible 1547, 1548

APODÆ *Pileus* sessile, adnate by a thickened, dilated base, dimidiate or entire, attached behind, commonly by an umbo, more rarely attenuate and sessile On wood Polymorphous 1549—1575

- a Anodermæa* *Pileus* somewhat fleshy, without a cuticle, the surface broken into flocci or fibres, zoneless, the substance transversely zoned within and more or less fibrous Annual, not reviving

Pileus cheesy, at first watery-soft, fragile, flocculose, not bristly-hispid when fully grown soft to hard but soon putrefying, not lasting through the winter *Tubes* white

Porus round, entire, obtuse, without small teeth Not becoming hard 1549—1553

Peris elongate, flexuous, acute and torn 1554—1559

Pileus tough, fleshy-pliant, soft, elastic, villosu-tomentose

Tubes somewhat adnate, coloured Lasting till the following spring

Substance coloured 1560—1562

Substance white or slightly brownish 1563—1568

At first moist, spongy, when dry firm, elastic usually bristly-hispid, internally fibrous Autumnal, annual The finest examples growing on living trunks Must not be confounded with the section *Stupposæ* of *Polystictus*, where the members are dry and rigid

Substance coloured 1569, 1570

Substance and spores white 1571, 1572

- b Placodermæa* *Pileus* clothed with a continuous crust, zoneless or concentrically sulcate Persistent

Substance coloured 1573

Substance white, not zoned *Spores* white 1574, 1575

MESOPODÆ

a Carnosæ

1517a **P flavovirens** Berk & Rav (from the yellowish-green colour of the pileus, *flavus*, light yellow, *vireo*, to be green) *a*

P soft, pulvinate or depressed, irregularly lobed, subtomentose, dull yellowish-green, yellowish-olive or olive *St* slightly attenuate downwards, pallid, paler than *P*, or shaded white and yellowish *T* slightly to very decurrent, short, irregular,

- * toothed, at length torn as in *Irpex*, white, yellow, then greenish
Flesh white, clouded pale sulphur

Woods, mixed, under *Pinus sylvestris* Sept $3\frac{1}{4} \times 2\frac{3}{4} \times \frac{3}{8}$ in

- 1518 P leucomelas** Fr (from the colours, Gr *leukos*, white, *melas*, black) *a*

P expanded, thick, subfragile, slightly silky squamulose, dark olive-umber or blackish fuliginous *St* equal to unequal, subtomentose, yellow-umber or as *P* *T* decurrent *Po* large, short, unequal white to cinereous, black when dry *Flesh* white, changing to faintest rufous-purplish or black

Woods, fir Sept $5\frac{1}{4} \times \frac{5}{8} \times \frac{5}{8}$ in

b Lentus

- 1519 P lentus** Berk (from the tough-pliant substance *lentus*, tough) *a b c*

P umbilicate, thin, minutely scaly, buff-white, shaded buff, ochreous or reddish-brown *St* equal, hispid or furfuraceous, colour as *P*, shaded sienna-buff *T* decurrent, long large, unequal, yellowish white *Po* toothed

Dead roots and branches, furze hawthorn, frequent April - Sept $2 \times 1 \times \frac{1}{2}$ in

- 1520 P brumalis** Fr (from the time of growth *bruma*, winter) *a b c*

P convexo-expanded, very thin, villous to squamulose and smooth, rich cinnamon to umber or slate umber marg paler *St* equal, minutely dark umber floccose on a pale brown ground, when young brown ochre above, ochre below *T* decurrent, very shallow, white, becoming yellow *Po* toothed *Flesh* white

Woods, on dead branches, sticks, hazel, birch, beech, sometimes on the ground, frequent $2 \times 2\frac{1}{2} \times \frac{3}{8}$ in

- 1520a P arcularius** Fr (*arcularius*, a casket maker in reference to the fulvous pores, covered by the pileus—as if in a casket) *a*

P pliant, then coriaceous, somewhat umbilicate, zoneless, orange-brown, in the first year covered with fuscous sq, in the second glabrous with a yellow strigose margin *St* somewhat squamulose greyish-fuscous or sooty-brown *T* oblong *Po* rhomboidal, thin, rather large, entire, whitish then fulvous *Flesh* white

Dead twigs Sept Varying from $\frac{3}{8} \times \frac{1}{2} \times \frac{1}{16}$ in to $2\frac{3}{8} \times 1\frac{1}{2} \times \frac{1}{4}$ in Distinguished from 1520 by the shape of the pores, the strigose margin and fuscous squamules of the pileus

- 1521 P fuscoidulus** Fr (from the somewhat fuscous pileus) *a*

P convexo-plane, very thin, leathery, pale yellowish-brown or pale olive-brown *St* equal, smooth, pale yellowish olive *T* adnato-decurrent, somewhat long, warm yellowish-white

Woods, chips, rare $2\frac{1}{4} \times 1\frac{3}{4} \times \frac{1}{4}$ in

- 1522 P leptcephalus** Fr (from the thin pileus, Gr *leptos*, thin, *kephale*, the head) *a b c*

P convexo plane, slightly depressed or subumbilicate, thin, leathery, pale yellowish buff or shining yellowish *St* smooth, colour as *P*, sometimes black at base *T* adnate *Po* minute, colour as *P* or whitish *Flesh* white

Woods, on trunks, dead birch, rare Oct-Mar $2\frac{1}{2} \times 1\frac{3}{8} \times \frac{1}{8}$ in

c Spongiose

- 1523 P Schweinitzii** Fr (after Ludwig David von Schweinitz) *a b c*

P expanded, rugged uneven, strigoso-tomentose, thick, deep orange-sienna to sienna-umber, irregularly zoned brown, mid almost black *St* rugged uneven or obsolete, sulphur, umber clouded below, dark umber at base *T* decurrent, large, sulphur to green-brownish sulphur *Po* torn *Flesh* deep sienna

Woods about roots fir, pine, larch July-Oct $6\frac{1}{2} \times 1\frac{3}{4} \times 1\frac{3}{8}$ in Hartig states that this fungus has an effect on living wood similar to that of the "Dry Rot" 1680

- 1524 P rufescens** Fr (from the rufescent colour) *a b c*

P depressed to infundibuliform, somewhat thin, strigose, pale vinous-umber mid darker marg irregular *St* equal, uneven sometimes lateral or absent, colour as *P* darker and clouded below *T* decurrent, pale yellowish-vinous-umber *Po* torn *Flesh* colour as *P*

On and about stumps, ash, elm Sept-Jan $5 \times 2\frac{1}{2} \times 1$ in Sometimes wholly biscuit buff

d Subcornuæ

- 1524a P tomentosus** Fr (from the minutely velvety pileus *tomentum*, wool) *a c*

P plane, corky, becoming hard, often lobed and irregular, tawny marg thin, straight, sometimes yellowish *St* solid, attenuate upwards, sometimes a mere base or central point, sometimes rooting, steel grey *T* subdecurrent, short *Po* very minute, entire pale- or greyish-yellow, at first delicately whitish pruinose *Flesh* pale tawny

On the ground $2 \times \frac{7}{8} \times \frac{1}{4}$ in This with 1524b, 1525 and 1526 have been placed by Cooke, Saccardo and Massee in *Polystictus*

- 1524b P Montagnei** Fr (after J F C Montagne) *a*

P cyathiform, irregular, zoneless, uneven, ferruginous, becoming smooth, marg thin *St* unequal, pubescent, colour as *P* *T* short *Po* large, round, edge entire, yellowish-white, then ferruginous *Flesh* tawny-cinnamon

Distinguished from 1525 by the zoneless pileus and large entire pores Autumn $1\frac{1}{2} \times 1\frac{1}{4} \times \frac{3}{8}$ in

1525 P perennis Fr (from its perennial habit) *a b c*

P plano-infundibuliform, velvety to smooth, thin, pale yellowish-brown, zoned darker, marg fimbriate *St* uneven, attenuate upwards, velvety, vinous-umber, pale sienna below *T* decurrent, short, pale umber *Po* small, torn, at first with a white bloom *Flesh* pale vinous-umber

On and about stumps, beech, burnt ground, frequent July - Jan
 $2\frac{3}{8} \times 1\frac{1}{4} \times \frac{1}{4}$ in

1526 P cinnamomeus Sacc (from the cinnamon colour of the pileus) *a b*

P plano-depressed or subinfundibuliform, velvety to smooth, thin, leathery flaccid bright sienna cinnamon, zoned deep rich brown *St* usually attenuate downwards, base sometimes tuberous, colour as *P* *T* adnate to adnato-decurrent, short, brownish-cinnamon, fulvous when dry *Po* large *Flesh* rich sienna-cinnamon

Solitary or in rows to subcapitate On the ground, under trees, burnt places Oct $3\frac{1}{2} \times \frac{3}{4} \times \frac{1}{4}$ in Pileus sometimes almost jet black

PIEUROPODÆ

*a Lentæ***1527 P squamosus** Fr (from the scaly pileus *squama*, a scale) *a b c*

P fan-shaped, flat pale brownish, sienna-brown-scaly *St* yellowish-umber, black spotted, blackish at base *T* decurrent, short *Po* toothed yellowish-white like the pores of tripe *Flesh* white

Single to capitate or imbricate Odour rank Trunks and stumps, ash, mulberry, walnut, maple, wych elm, common Sometimes 2 ft 6 in in diam and 34 lbs in weight April-Nov 1 ft 4 in $\times 1\frac{1}{4} \times 1\frac{1}{4}$ in The flesh makes good razor-strops, but is often larva pierced In the British Museum collection of drawings Bolton illustrates an antler like form of this species, growing from a dark brown sclerotoid base

1528 P Micheli Fr (after Pier Antonio Micheli) *a*

P spathulate, slightly silky, yellowish white with darker sq *St* equal, rough, white becoming fuscous at base *T* decurrent, short *Po* large entire, white

Somewhat cespitose Stumps, willow $2\frac{1}{4} \times \frac{1}{4} \times \frac{1}{2}$ in

1529 P melanopus Fr (from the black stem *Gr melas*, black, *pous*, a foot) *a b c*

P subinfundibuliform delicately flocculose to smooth, somewhat thick, pale yellowish *St* attenuate upwards, somewhat velvety, umber, rich brown or black *T* decurrent, short, white *Po* minute

Somewhat caespitose Dead wood, roots, uncommon Aug - Oct
 $2\frac{1}{2} \times 1\frac{1}{2} \times \frac{3}{8}$ in

- 1530 P Rostkovii** Fr (after Friedrich Wilhelm Gottlieb Rostkovich)
a b c

P dimidiato-infundibuliform, somewhat thick, yellowish-sienna, deep umber at mid and behind *St* equal, reticulate, deep umber to black *T* decurrent, short, white to dull yellowish *Po* large, angular, toothed

Somewhat caespitose Woods, on stumps, trunks, ash, rare July-Jan
 $4\frac{3}{8} \times 1\frac{1}{2} \times \frac{3}{4}$ in

- 1531 P picipes** Fr (from the pitch-black stem, *pix*, pitch, *pes*, a foot) *a b c*

P somewhat depressed at mid or behind, red-brown or chestnut *St* equal or attenuate downwards, velvety to naked *T* decurrent, somewhat short, whitish to yellowish *Po* round, small *Flesh* white

Odour somewhat sweet Trunks, willow, frequent July - Dec
 $6\frac{3}{8} \times 1\frac{3}{8} \times \frac{3}{8}$ in Like a large **1533**, var *nummularius*

- 1532 P varius** Fr (from its variable size, colour and form) *a b c*

P depressed at mid or behind, somewhat virgate, yellowish-brown, shaded palish vinous-umber, marg undulate *St* even, smooth, cinereous blackish downwards *T* decurrent, short, white to yellowish *Po* minute *Flesh* white

Single to subcaespitose Sometimes sessile Trunks, stumps, ash, willow, elder, birch, frequent Aug - Feb $3\frac{3}{4} \times 1\frac{1}{4} \times \frac{5}{8}$ in

- 1533 P elegans** Fr (from its elegance) *a b c*

P convex to slightly depressed, usually excentric or dimidiate, becoming woody, ochreous, orange or reddish *St* even, smooth, black, abruptly pallid at apex *T* adnate or slightly decurrent, yellowish-white, brownish-yellow or slightly orange *Po* minute

Single to subcaespitose Trunks, birch, willow, beech, frequent July-Feb
 $2\frac{3}{4} \times 1\frac{3}{4} \times \frac{3}{8}$ in Var *nummularius* Fr Smaller than type, *P* almost regular 1 in in diam

- 1534 P petaloides** Fr (from a fancied resemblance in its shape and thinness to a leaf, Gr *petalon*, a leaf, *eidos*, appearance) *a b*

P spatulate, thin, rugose, zoneless, dark rich chestnut *St* smooth, whitish, sometimes dark brown below *T* decurrent, somewhat short, white *Po* minute

Old stumps Jan $2 \times \frac{3}{4} \times \frac{3}{8}$ in

b Suberosolignosæ

- 1535 P lucidus** Fr (from the shining pileus and stem, *lucidus*, bright) *a b c*

P fan-shaped or spatulate, sulcato-rugose, corky to woody, lustrous, deep rich blood-chestnut *St* lateral, irregular, uneven, lustrous, deep purple-chestnut *T* adnate, somewhat

' long, rarely stratose, yellowish-white, clouded pale brownish
Flesh tan-brownish

Single to cespitose On and about stumps, hornbeam, frequent Oct-April
 $7 \times 6 \times 1\frac{1}{2}$ in Sometimes sessile Occurs in peat beds in the fens of the
 Eastern counties and in the lake side pile dwellings of Switzerland and
 Italy The varnished appearance of the pileus is due to the presence of
 resin This species has been placed in *Fomes* by Cooke and Saccardo

MERISMATÆ

a Carnosa

1536 P umbellatus Fr (from the many stems and pileoli forming
 an umbel) *a*

Pi very numerous, entire, umbilicate, fibrous-fleshy, warm-umber,
 or yellowish-reddish- or slate-umber, rarely white *St* white
 to yellowish-white *T* short, subdecurrent, colour as *St*
Po minute

Said to be edible Woods, near and on stumps July Mass $9\frac{3}{4} \times 9\frac{3}{4}$ in
Pi $1\frac{1}{2} \times 1\frac{1}{2} \times \frac{1}{4}$ in

1537 P frondosus Fr (from the branching habit, *frons*, a leafy
 branch) *a c*

Pi numerous, dimidiate, rugose, convex to recurved, somewhat
 thin and tough, yellowish-umber to pale purple-slate
St yellowish-white *T* decurrent, somewhat short, yellowish-
 white *Po* small

Stumps, trunks, roots, oak, rare Oct Mass $10\frac{1}{2} \times 9\frac{3}{4}$ in *Pi* $3\frac{3}{4} \times 1\frac{1}{4} \times \frac{1}{4}$ in

1538 P intybaceus Fr (from a fancied resemblance to succory,
Cichorium Intybus) *a b c*

Pi numerous, dimidiate, fragile, sepia, not dark, lighter at mid
St white *T* decurrent, very short, pale sepia

Edible Taste usually pleasant, sometimes slightly astringent when raw,
 odour of mice, in decay like japanner's varnish Stumps, trunks, oak rare
 Sept-Dec Mass $12\frac{1}{2} \times 7\frac{1}{2}$ in *Pi* $3 \times 1\frac{3}{4} \times \frac{1}{2}$ in The cauliflower
 like stems are the edible parts, not the pileoli The "cock of the woods"
 (grey grouse hen) of the Vosges and Ardennes

1539 P cristatus Fr (from the crested appearance, *crista*, a
 crest) *a c*

Pi numerous, dimidiate, somewhat thick, fragile, bright yellow or
 greenish, sometimes clouded reddish *St* irregular *T* very
 short, whitish *Po* minute, angular, torn *Flesh* white, becoming
 ochre

Woods, beech, rare Mass $7\frac{3}{4}$ in in diam *Pi* $3\frac{1}{2}$ in

b Lentæ

1540 P giganteus Fr (from its great size) *a b c*

Pi several, dimidiate, thick, umber, 2 darker *St* short, pale
 yellowish-white, brownish or ashy where bruised *T* somewhat

short *Po* minute, colour as *St* *Flesh* cheesy, vinous-white

Taste astringent, disagreeable odour strong, oppressive, like rotten cheese
Stumps, elm, oak, beech, acacia Becoming blackish in drying July-Jan Mass 1 ft 3 in *Pi* 8½ in

1541 *P. osseus* Kalch (from its colour, like bone, *os*) *a b c*

White, shaded grey or buff-white

Pi several, thick, convex to flat, smooth *St* short *T* decurrent, short *Po* minute, shallow

Odour acid Stumps, larch Oct Mass 6¾ in *Pi* 4¾ in

1542 *P. acanthoides* Fr (from a fancied resemblance to *Acanthus*, *Gr. idos*, appearance) *a b c*

Pi numerous, dimidiate, thin, pliant, yellowish-sienna *z* sienna, marg paler *St* pale brownish *Po* lamelloso-sinuate, toothed, colour as *St* *Flesh* faintly rufous

Trunks, roots, buried wood Sept Mass 8¾ in *Pi* 4½ in

c Caseosa

1543 *P. sulphureus* Fr (from the sulphur-colour) *a b c*

P few, thick, juicy-cheesy, sulphur-yellowish, somewhat clouded ochreous-reddish or salmon *St* short *Po* minute, colour as *P* *Flesh* thick, pale sulphur, somewhat vinous above

Imbricate Said to be edible Taste slightly astringent somewhat acid, odour fragrant to disagreeable acid, foxy, pleasant if burnt when dry Living trees, stumps, oak, yew, chestnut, willow, cherry, alder, poplar, walnut, pear, apple, larch, *Robinia*, ash, pine May-Oct Mass 9½ in *P* 7½ in Pileus covered with crystals of oxalate of lime One of the fungi used in past times for tinder Usually rots the middle of a tree-trunk, leaving the outside sound Sometimes phosphorescent *Ceratomyces (Pythogaster) aurantiacus* is said by Saccardo to be an imperfect state of this species

1544 *P. imbricatus* Fr (from the imbricate habit) *a b c*

P few to many, firmer than 1543, thin, rugose, subviscid, buff *T* long, pale yellowish *Po* lustrous *Flesh* thin, white

Odour strong, like seed cake Trunks, oak, rare June-Nov Mass 11 in *P* 6 in

1545 *P. spongia* Fr (from the spongy substance) *a b*

P few, thick to thin, often rugose, yellowish- chestnut- or umber-sienna, darker at base, *z* indistinct, marg sometimes sulphur or pale dull ochre *T* somewhat short *Po* minute, torn, pale primrose, faintly reddish where bruised *Flesh* pale opaque sienna

Subimbricate Trunks pine Oct-Nov Mass 11 in *P* 6 in *Boletus Hæbergii* Rostk is a form of this

- 1546 ' **P. alligatus** Fr (from its binding or enveloping habit, *aligo*, to bind to) *a b c*

P many, villous, white, marg pale umber *T* short *Po* minutely labyrinthiform, colour as *P* *Flesh* biscuit-whitish

Imbricate connate Roots, etc, rare Sept Mass 5 in *P* 2½ in Some times faintly shaded, vinous

d Suberosæ

- 1547 **P. heteroclitus** Fr (from its irregular, leaning habit, *Gr heteros*, one of two, *klino*, to lean) *a c*

P few or many, thin, shaggy-villous, zoneless, yellow, sienna behind, marg lobed *T* somewhat short *Po* pale pumrose to golden-yellow *Flesh* white

Imbricate Stumps, partly buried, oak, rare Jan Mass 7 in *P* 3½ in

- 1548 **P. salignus** Fr (from a frequent habitat, *salix*, willow) *a b c*

P few to many, thin, adpressedly villous, whitish marg crested *T* somewhat short *Po* intricately flexuous, whitish *Flesh* white

Imbricate Odour none Trunks, willow, ash, poplar, oak, apple, uncommon Oct-Feb Mass 7¼ in *P* 3¼ in A dark line separates the tubes from the flesh of the pileus as seen in section

APODÆ

•1

a Anodermia

- 1549 **P. epileucus** Fr (from its whitish colour, *Gr epi*, upon, *leukos*, white) *a b c*

P few, pulvinate, villous-rugged, thick cheesy-soft, yellowish-white, clouded greyish, rarely faintly zoned *T* long, biscuit-primrose or brownish-white *Flesh* buff-white

Subimbricate Stumps, trunks, elm, fir, willow, birch, rare Sept-Nov Mass 8½ in *P* 5½ in

- 1550 **P. alutaceus** Fr (from its colour, like tanned leather, *aluta*) *a*
Whitish-ochre

P few, tough, reniform-dilated, slightly velvety marg acute, even *Po* small

Imbricate Decayed stumps, pine, beech Sept-Oct Mass 5½ in *P* 3 in

- 1551 **P. pallescens** Fr (from the colours becoming pale, *pallesco*, to grow pale) *a b c*

P few, corky, even to rugose, pale buff, marg lighter *T* small, pale yellowish, pale vinous towards base *Flesh* buff-white

Imbricate Stumps, branches, hornbeam, rare Mass 5½ in *P* 2½ in

- 1552 **P. chioneus** Fr (from its snow-white colour, *Gr chion*, snow) *a b c* Pearly or biscuit white

P few, soft, fragile, smooth, thin, zoneless or faintly zoned *T* long, but varying in length

Single to 3 imbricate Taste astringent, odour acid Stumps, larch, fir, birch, uncommon June-Dec *P* 2½ in

- 1553 **P cerebrinus** B & Br (from its brain-like appearance, *cerebrum*, the brain) *a b* White

P pulvinate, delicately tomentose, then smooth, marg crenate

T rounded, entire, dissepiments of the large *Po* thick, obtuse

Fir Aug *P* 1 in Resupinate not unlike 1657

- 1554 **P lacteus** Fr (from the milk-white colour *lac*, milk) *a c* White

P 1-3 connate, gibbous, thick, flesh-fibrous, pubescent, zoneless

T long *Po* toothed, at length labyrinthiform and torn

Imbricate-connate Taste astringent, odour none Dead bark, leaves, alburnum birch, beech, rare Sept-Nov *P* 3 in

- 1555 **P fragilis** Fr (from its fragile substance) *a b c*

P convex to plano depressed rugose, thick, whitish, pale foxy-red where bruised *T* long *Po* minute, intricate, colour as *P*

Single to 7 imbricate Stumps and branches pine, covering moss on pine bark, larch, uncommon Sept-Nov *P* 2½ in

- 1556 **P mollis** Fr (from its softness *mollis*, soft) *a c*

P effuso reflexed, rugose flesh fibrous, pale flesh-colour, livid or brownish-biscuit, sometimes slightly zoned darker marg acute, foxy where bruised *T* long, unequal, soft, white or salmon-white, foxy where bruised

Single to 3 imbricate or connate Dead pine Sept *P* 2½ in

- 1557 **P cæsius** Fr (from its bluish-grey clouding *cæsius*, bluish-grey) *a b c* Ivory-white, becoming pale turquoise or bluish-grey where bruised

P thick, fleshy lobed, unequal, silky *T* long *Po* torn into teeth

Single to 3 imbricate or connate Dead fir, larch, dead fir leaves, roots, trunks posts, sticks Mar-Nov *P* 4½ in

- 1558 **P trabeus** Rostk (from its frequent habitat, the wood of ships *trabs*, timber) *a c* White

P thick, firm, effuso-reflexed transversely elongate zoneless, pallid *T* short *Po* minute toothed *Flesh* hyaline when moist

Single Wood, yew, pine Oct *P* 3½ in Commonly confounded with 1559, from which it is distinguished by being more regular and brighter in colour

- 1559 **P destructor** Fr (from its destructive effect on wood) *a b c* Ivory-white

P watery fleshy, rugose, marg pale brownish *Po* toothed or torn

Connate imbricate Worled wood, which it softens and destroys, stumps, branches, fir, larch, fir leaves, willow, common May-Dec *P* 3½ in Var *undulatus* Sacc Broadly expanded, marginate, pale foxy brown *Ceromyces (Ptychogaster) albus* (fig 77) is very commonly associated with this species and 1572 Berkeley considers *Ptychogaster* to be an imperfect conical state of one or both of these *Polypores*, whilst others regard it as a parasite It has also been made a species of *Polyporus*, viz *P Ptychogaster*

, Ludw., and as such is placed after 1559 by Saccardo. The plant grows on rotten fir trunks and on the ground, involving fir leaves



Fig. 7.—*Polyporus* *ludwigii* Sacc. A section three quarters natural size B threads and conidia $\times 77$

- 1560 *P. nidulans* Fr** (from the nest-like shape *nidus* a nest) *a b c*
Whitish-sienna and umber, or slightly orange
P single, pulvinate, villous, zoneless, thick, soft *T* long, unequal, angular
Single, usually in small troops. Fragrant when dry. Dead wood, branches, wych elm, uncommon Jan-Dec *P* 1 in. At first resupinate and from 3 to 7 in. in diam.
- 1561 *P. rutilans* Fr** (from its reddish colour, *rutilus*, to be reddish) *a b c*
P thin, villous to smooth, zoneless, ivory-whitish then brownish, clouded vinous *T* long *Po* minute equal, cinnamon or vinous *Flesh* pale ochre, vinous towards *T*
Single to 2 imbricate or connate. Odour powerful and pleasant of anise. Logs, branches, sticks, oak, uncommon April-Dec *P* 1½ in. At first resupinate. Perhaps this and 1560 are one species. See 1607
- 1562 *P. gilvus* Fr** (from its colour *gilvus*, pale yellowish) *a b c*
P thick, zoneless, pale sienna-yellow or sienna-umber marg. velvety, becoming smooth, lighter than *P* or dull orange *Po* minute with barren patches dark orange-brown marg. barren *Flesh* bright orange-brown
Single to 3 imbricate or connate. Trunks, willow, oak, rare Jan *P* ½ in. *Boletus impuber* Sow. t. 195. At first effuso-resupinate
- 1563 *P. fumosus* (from its smoky colour *fumosus*, smoky) *a b c***
P firm, zoneless, somewhat thin, silky to smooth, pale buff, pale biscuit or slate-umber, sometimes shaded vinous *T* whitish to ivory-umber, or smoky-livid, with a smoky tinge, darker where bruised, often with barren patches *Po* round, entire *Flesh* very pale buff or brownish
2-16 imbricate and connate. Stumps, logs, poplar, willow, birch, horse chestnut, common July-Feb *P* 2 in. Mr Carleton Rea has met with a very large example on a wooden grass roller

1563a P fragrans Peck (from the fragrance)

P fleshy, effuso reflexed, imbricate, sometimes thickened at the base, velvety, with minute tomentum, pale reddish-grey or alutaceous, marg thin *T* $1\frac{1}{2}$ in long *Po* minute, unequal, angular, whitish, becoming darker with age, blackish where bruised *Flesh* slightly fibrous zoned, concolorous

Stumps, elm 4 × 2 in Often mistaken for **1563**, but distinguished by the sweet odour

1564 P adustus Fr (from its scorched appearance *aduro*, to burn) *a b c*

P somewhat thin, buff ivory, with 4-6 darker *z*, marg becoming blackish *T* somewhat short *Po* minute, warm ivory-brown, becoming ragged and tinted slate-colour *Flesh* whitish to buff-ivory

Single to 8 imbricate Stumps alder, oak, willow, birch poplar hornbeam, dead leaves, frequent Jan-Dec *P* $2\frac{1}{2}$ in

1565 P crispus Fr (from the crisped margin of the pileus) *a c*

P rugose, tuberculose behind, thin, ivory-buff, brownish behind, marg umber white *T* somewhat short *Po* large unequal, labyrinthiform slate-whitish or brown-white marg barren *Flesh* buff-white

About 4-9 connate Old stumps, uncommon May-Jan Mass $3\frac{1}{2}$ in *P* $1\frac{1}{2}$ in

1566 P amorphus Hk (from its shapelessness Gr *a*, without, *morphe*, form) *a b c*

P thin silky, somewhat tuberculose behind, orange to white *T* somewhat short *Po* unequal, pale orange-vermilion or pale ivory-vermilion marg barren

Multi imbricate Stumps, leaves fr uncommon Sept-May Mass 3 in *P* 1 in Cooke refers **1622** to this, but the spores are different in shape and size Often in part resupinate *Ceromyxa* (*Psychogaster*) *citrinus* is said by Saccardo to be an imperfect state of this

1567 P adiposus B & Br (from its fat-like substance *adipis*, fat) *a c*

P effused, waxy-soft, shortly reflexed, thin, obscurely tomentose, bright red-brown *T* short *Po* small, salmon marg salmon-orange

On the ground near stumps, on mosses, *Marchantia* uncommon Dec Mass $1\frac{1}{2}$ in *P* $\frac{1}{2}$ in

1568 P Keithii B & Br (after the Rev Dr James Keith) *a b c*

P bell-shaped, decurrent behind, rough with rigid, tooth-like processes, bright red-brown *Po* pallid deep vinous when dry, dissepiments lacerate

Single to 2 imbricate Sticks naked wood *P* $\frac{1}{2}$ in

1569 P hispidus Fr (from the hispid pileus) *a b c*

P thick, dimidiate, pulvinate, hispid, rich red-brown, marg sienna-ivory *T* long *Po* minute, ivory to pale brown-ochre *Flesh* juicy, tender, elastic, spongy, dull orange to sienna

Single to 3 imbricate Living trunks, pine, ash, larch apple, mulberry,

- walnut, lime, oak, elm, *Euonymus*, common May-Feb P 10½ in
Close to the bark of the tree the pubescence often resembles *Ozonium
auricomum* see 237 Sometimes 18 in in diam Becomes dense and
fibrous in age Tubes sometimes distilling drops of water, becoming
wholly black in age

1570 P cuticularis Fr (from its thinness, skin-like, as compared
with 1569, *cuticula* a thin external skin) *a b c*

P thin, subrugose, hairy or tomentose, obscurely zoned, yellow-
buff to deep vinous-brown *T* somewhat long *Po* minute,
vinous- or orange-brown, not dark *Flesh* vinous-brown,
not dark

Single to 3 imbricate Trunks, beech, fir Nov-Dec P 5½ in bearing
the same relationship to 1569 as 1544 does to 1543

1571 P spumeus Fr (from its early condition of frothy-softness,
spuma, froth) Ivory- or ochre-white

P pulvinate, gibbous, somewhat thick, rugoso-hispid to plane
T somewhat short *Po* minute

Single to 3 imbricate Trunks and stumps, hornbeam, elm, apple ash,
willow, beech, birch, oak July-Oct P 7½ in

1572 P borealis Fr (from its being common in northern latitudes,
borealis, northern) *a c* White to yellowish-buff

P subpulvinate, hairy, somewhat thick, fibrous *Po* small,
sinuoso-flexuous, torn margin barren

Single to 3 imbricate Stumps, pine, fir, spruce Sept P 3½ in
Hartig states that this fungus is the cause of 'white rot' in spruce
berkeley considers that *Ceromyces (Ptychoaster) albus* may be an imperfect
state of this species or of 1559

b Placodermæ

1573 P dryadeus Fr (from its habitat, oak, Gr *dryas*) *a b c*

P pulvinate, thick, rugged to smooth, somewhat ferruginous,
becoming fuscous *T* long, pale ferruginous *Flesh* vinous-
sienna, not dark, streaked and zoned darker

Single to 2 imbricate Taste somewhat acid or astringent Trunks, oak,
beech, frequent July-Oct P 9 in Exuding drops all over, which
become black in drying

1574 P betulinus Fr (from its habitat, birch, *betula*) *a b c*

P hoof-shaped, zoneless, smooth, thick, the vertex in the form of
an um or short stem, pellicle thin, cracking, pale umber-
whitish, becoming darker *T* very short *Po* minute, white

- Trunks, branches, birch, common May-Jan P 8 in Pores sometimes
stained by *Hypomyces rosellus* and *Hypocrea ochracea* Used by rustics in
past times for razor strops Said by Hartig to cause the "red rot" of birch

1574a P benzoinus Fr (from its odour of benzoin) *a*

P woody, conchiform, but constricted at the base, fuscous-
rubiginous, somewhat zoned, rugose when dry, and becoming
darker *T* long *Po* at first whitish, then ferruginous
Flesh yellowish-white

Subimbricate Fallen cedars Jan P 7 in Sweet scented, odour retained
in drying Allied to *Tiametes*

1575 *P. quercinus* Fr (from its habitat oak, *quercus*) *a b c* •

P pulvinate, very thick, soft to hard, ivory- or sulphur-whitish, clouded and margined reddish *T* short, minute, whitish, clouded as *P* *Flush* ivory-white, zoned orange-red and pale sulphur

Single to 3 imbricate Taste intensely bitter Old oaks, oak logs often in company with 1517, which it somewhat resembles May-Dec Mass 6 in *P* 3½ in Often barren sometimes 1 ft in diam

LXIII FOMES Karst

(From the use in kindling fire in past times,
fomes, touch-wood, tinder)

Pileus hard and woody from the first texture consisting of interwoven hyphæ, covered with a hard rigid crustaceous cuticle zone-

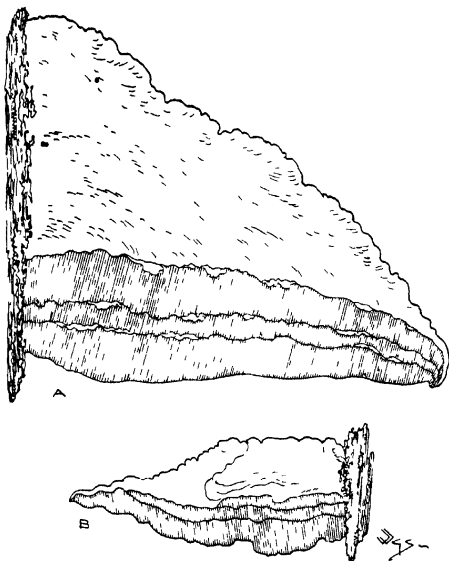


Fig 78 — A section of *Fomes fomentarius* Karst B ditto *F. annosus* Cooke
One half natural size

less but often concentrically sulcate, perennial, forming successive strata (Fig 78)

- a Fomentariæ* *Pileus* pulvinate, juiceless, not fleshy or spongy, floccose, covered with a hard, horny crust *Tubes* striatose after the first year Perennial, lasting for twenty years or more, adding new strata annually Growing on wood

Substance of tubes umber or fuscous 1576

Substance of tubes somewhat ferruginous 1577—1585

Substance white or pallid 1586—1589

- b Lignosæ* *Pileus* hard woody, juiceless, covered with a thin, somewhat lustrous crust smooth or becoming so, somewhat effused at the base Flatter than *Fomentariæ* or effuso-reflexed 1590—1594

a Fomentaria

- 1576 **F vegetus** Karst (from its vigorous growth, *vegetus*) *a c*

P concentrically and radiato-corrugate or rugose, deep olive-slate, dark brown behind marg sometimes brown *T* somewhat long, single to 5-stratose *Po* minute, ivory-brownish, surface brown-white, marg barren *Flesh* thin floccoso-lax, yellow-brown or vinous warm-brown

Single to 3 imbricate Trunks, lime, elm, rare *P* 7½ in diam *Polyporus Stevenii* Leveill, according to Bresadola

- 1577 **F applanatus** Karst (from its flattened shape *plano*, to level) *a b c*

P flattened, tuberculose, vaguely rugged-sulcate-zoned smooth, cuticle crustaceous fragile somewhat shining cinnamon or brown, becoming greyish with age *T* long, single to 6-stratose, subferruginous *Po* roundish very minute, white brownish when bruised *Flesh* thick, floccoso-soft, rich brown

Sometimes imbricate Odour acid Trunks, ash, beech, fir, oak, birch, poplar, uncommon July-Mar Diam 1 ft According to Bresadola *Polyporus Inzenga* Fr and *Polyporus roburatus* Fr are both forms of this Much softer than 1578 Sometimes weighing 4-5 lbs

- 1578 **F fomentarius** Karst (from its former use as tinder, *fomentum*) *a b c*

P hoof-shaped, more or less triangular in section, concentrically rugged-sulcato-zoned, smooth, cuticle thick, hard, yellowish-brown-reddish, fuliginous- or dingy-brown, marg paler, at first with a white bloom *T* long, single to 9-stratose, ferruginous *Po* subangular, white, then ferruginous or ivory-brown *Flesh* floccoso-soft, orange-brown

Trunks, oak, birch, beech, lime, hornbeam, common Jan-Dec Diam 8 in Formerly used as tinder in its soft natural state Generally destroys exterior of trunk for one quarter of circumference and from base to 20 ft up Said by Hartig to cause "white rot" of beech and oak Occurs in peat beds in the eastern counties and in the lake side pile dwellings of Switzerland and Italy Formerly used as a hamostatic The ashes are used by the Ostiaks and Kamtschatkans as snuff

1579 F nigricans Karst (from its black pileus *niger*, black) *a c*

P hoof-shaped or pulvinate, very thick, deeply and concentrically sulcato-zoned, cuticle very hard, shining, black, marg very obtuse, ferruginous *T* somewhat long, single to 13-stratose, ferruginous *Po* very small, obsoletely angular, dark yellowish-grey *Flesh* very hard, yellowish-brown

Living and dead birch, beech, hornbeam, uncommon May-Oct Diam $5\frac{1}{2}$ in Δ var of 1578 according to Bresadola

1580 F ignarius Karst (from its former use as tinder, *ignis*, fire) *a b c*

P tuberculoso-globose, immarginate, then hoof-shaped, deeply sulcato-zoned, uneven, smooth, cuticle very hard, ochre to reddish- and blackish-brown marg rounded *T* long, single to 9-stratose *Po* very small, pile tawny, at length cinnamon, when old filled with white mycelium *Flesh* very hard, zoned, ferruginous

Trunks, ash poplar, willow cherry, plum plane apple, oak, fir, beech, alder, maple, birch, common Mar-Nov Diam $6\frac{1}{2}$ in Formerly used as a hemostatic The ashes are used by the Ostiaks and Kamtschatkans as snuff Only used as tinder after baking boiling and beating Hartig considers this to be a parasite Occurs in peat beds in the eastern counties and in the lake side pile dwellings of Switzerland and Italy The form on willow has been named *Polyporus pomaceus* Pers

1581 F fulvus Karst (from the tawny pileus *fulvus*, tawny) *a b c*

P ventricose, hoof-shaped, triangular in section, at first villosos-hairy, then even rich tawny *T* short, ochre or brown-biscuit *Po* minute, colour as *P* *Flesh* woody-corky, tawny

Somewhat capitate and imbricate Decayed trunks, beech, silver fir, spruce rare Oct-Mar Diam $3\frac{3}{4}$ in Pores not always distinctly stratose According to Bresadola the same as *Polyporus cinnamomeus* Trog

1582 F pectinatus Cooke (from the comb-like markings on the pileus, *pecten*, a comb) *a b c*

P flattened, thin, concentrically lamellato plicate and tomentososcaly, whitish-brown, salmon or deep umber-sienna *T* short, yellow-brown, marg barren *Po* very small, somewhat pale salmon-umber

Imbricate Trunks Group $6\frac{1}{2}$ in diam *P* $4\frac{1}{2}$ in diam Δ form of 1584, according to Bresadola

1583 F conchatus Karst (from its shape, *concha*, a shell) *a b c*

P flattened, thin, concentrically sulcate, somewhate corrugate, tomentose, deep yellow-brown or sienna-brown, marg acute *T* short to long *Po* very small, yellow-orange or brownish, sometimes olive-shaded *Flesh* thin, hard, corky, yellowish-brown

Imbricate Trunks, willow, beech, frequent Feb-Oct Group $4\frac{1}{2}$ in diam *P* $2\frac{7}{8}$ in diam Often wholly resupinate Δ form of 1585 according to Bresadola

- 1583a F Euonymi** W G Sm, *Polyporus Euonymi* Kalchb (from its host plant, *Euonymus europæus*) *a c*

P fleshy, rugose, cinnamon, darker with age, salmon at the marg, edge white *T* short, minute cinnamon *Po* minute, salmon or whitish-cinnamon *Flesh* cinnamon

Mass $3\frac{3}{4} \times 3\frac{1}{4}$ in, projection 2 ins Tubes sometimes multi-stratose, with flesh of pileus reduced to $\frac{1}{8}$ in thick Closely allied to *F Lonicæ*

- 1584 F Ribis** Cooke (from its habitat, currant and gooseberry bushes, *ribes*, currant) *a b c*

P thick, somewhat sulcato-zoned, effused amongst branches, somewhat even, indistinctly zoned, velvety, orange or brown-sienna, becoming slate-brown behind *T* short, colour as flesh *Po* very small yellow-sienna becoming sepia-cinnamon *Flesh* corky-coriaceous to soft brownish sienna-orange

Connato imbricate Perennial Common April-July Group $3\frac{1}{2}$ in diam *P* $2\frac{1}{2}$ in diam Substance suitable for tinder The same as 1582 and 1583a according to Bresidola

- 1585 F salicinus** Karst (from its habitat willow, *salix*) *a c*

P undulate, whitish-brown yellowish-brown or black, 3-8 zoned, dark-umber *T* deep umber-sienna *Po* very small, ferruginous-cinnamon marg barren *Flesh* woody, very hard, whitish- or yellowish-brown

Crespitoso imbricate for the most part or wholly resupinate Common Group $3\frac{1}{2}$ in in diam *P* $1\frac{1}{2}$ in diam A form of 1583 according to Bresidola *Cremus* (*P'h ho, aster*) *spongæ* is said by Saccardo to be an imperfect state of this

- 1586 F roseus** Cooke (from its rose colour) *a b c*

P thin, somewhat flattened even subrugose shining dull rose or rose-red, dark zoned marg dark *T* somewhat long, marg barren *Po* minute, colour as *P* *Flesh* corky-woody, floccoso-fibrous, colour as *P* or paler

Imbricate, cespitose Stumps apple dressed wood (Oct *P* $2\frac{1}{2}$ in diam Colour permanent in drying The same as *F rufopallidus* and 1592 according to Bresidola

- 1587 F ulmarius** Cooke (from its habitat elm, *ulmus*) *a b c*

P thick, convex, tubercular uneven, becoming smooth, white to leather-buff, blackish in old examples marg white, becoming tawny *T* single to 6-stratose, ivory, bright salmon or buff-vinous, brown in decay *Flesh* corky-woody, very hard, white

Connato imbricate Single Odour disagreeable Inside old elms Sept - Feb *P* $6\frac{1}{2}$ in diam

- 1588 F cytisinus** Cooke (from one of its habitats, laburnum, *Cytisus*) *a b*

P thick, convex, smooth whitish, biscuit, or pale brownish *T*

somewhat short, white-salmon, marg barren *Po* biscuit or with a sulphur shade *Flesh* thick, close, velvety-fibrous, white
Single to imbricate Stumps, dressed wood, rare *P* 6½ in diam
Bresadola considers this and 1590 to be the same

1589 F connatus Cooke (from its connate habit) *a b c*

P somewhat thick, villous, whitish-buff, brown shaded *T* somewhat short, colour as *P*, marg barren *Po* minute, white to cream *Flesh* corky-woody, pale buff to full buff

Effuso reflexed, connate imbricate Trunks, lime, apple, elm, maple, frequent Oct-Jan *P* 6½ in diam See 1631

b Lignosæ

1590 F fraxineus Cooke (from its habitat, ash, *fraxinus*) *a b c*

P thick, flat, concentrically sulcato-plicate, zoneless, white or ivory to rich brown marg whitish *T* decurrent, moderate in length, white, cinnamon- or pale vinous-white *Flesh* whitish-cinnamon

Solitary to connate Perennial (Odour strong, penetrating Frequent Jan-Dec *P* 5½ in diam Bresadola considers this and 1588 to be the same

1591 F variegatus Cooke (from the variegated pileus, orange and bay-brown) *a b*

P thin, somewhat plane, even, smooth, shining tawny-orange, darker or bay-brown behind *T* decurrent, moderate in length, colour as *P* *Po* minute unequal torn pale yellowish-white, shaded biscuit marg barren *Flesh* pale buff

Subimbricate Trunks rare *P* 4½ in diam Bresadola says this is unknown, and probably a form of *Polyporus unguatus* Schett

1592 F carneus Cooke (from its flesh-colour *caro*, flesh) *a c*

P somewhat thick, convex, rugose, smooth, salmon-buff to reddish-salmon, varying deep rich brown behind, pale at marg *T* shallow to moderate, full opaque-salmon *Flesh* pale bright salmon or red-salmon varying rose-brown marg barren

Connate imbricate Perennial Trunks, stumps, juniper, *Picea* Nov *P* 2½ in diam A form of 1586 according to Bresadola Said to be the cause of "red rot" in Red Cedar, *Juniperus virginiana*

1592a F castaneus Cooke (from the colour, *castaneus*, chestnut) *a*

P coriaceous-woody, flattened, smooth, glabrous, zoneless, chestnut-colour *Po* small, yellowish *Flesh* white

Imbricate connate Black poplar 1½ × 1½ in ½ in projection

1593 F annosus Cooke (from its growing in yearly strata *annus*, a year) *a b c*

P convex, rugged, radiato-sulcate, sulcato-zoned, at first silky, then crusty, cinnamon-ochre when young, then deep rich vinous- or sienna-brown, marg almost white *T* moderate in

- length, stratose, whitish-buff *Po* medium, salmon-white
Flesh colour as *T*

Imbricate About stumps, posts, roots, squared timber, pine, spruce, fir, larch, juniper, birch, beech, *Sequoia gigantea* very common Jan - Dec *P* 7 $\frac{3}{8}$ in diam Sometimes wholly resupinate Some forms of this are *Trametes radicipeda*, said to cause "red rot" and piping in larch, the mycelium growing from the roots to the trunk Sometimes phosphorescent in mines and seen 20 yards off The white mycelium so often seen running over the hymenium belongs to *Verticillium microspermum*, the conidial condition of *Hypomyces Broomianus*

1594 F populinus Cooke (from its habitat, trunks of poplar, *populus*)

a b c

P rigid, zoneless rugose, villous, warm-biscuit *T* deeply decurrent, not stratose, shallow *Po* minute, colour as *P*
Flesh colour as *P*

Nearly solitary to subconnate or imbricate, for the most part resupinate
Aug-Jan *P* 2 $\frac{1}{2}$ in diam *Polyporus connatus* Weinm (not Fr) and 1631 are forms of this according to Bresadola, see 1631

LXIV POLYSTICTUS Fr

(From the pores or punctures on the hymenium (or *polus*, many, *stictos*, punctured))

Pileus coriaceous, membranaceous or somewhat spongy, cuticle thin and loosely fibrous *Tubis* first appearing in the centre and successively developing towards the margin, at first superficial and distinct, then becoming deeper and more crowded, not stratose (Fig 79) Species 1595-1608

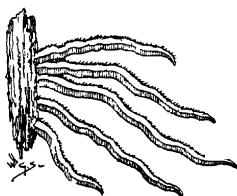


Fig 79—Section of *Polystictus versicolor* Fr
One half natural size

1595, 1595a and 1596 are placed in *Polystictus* by Cooke and Massée, in *Poria* by Saccardo

a Stupposa *Pileus* flocculose, or adpressedly villous or smooth, uneven, zoneless, texture fibrous
Substance coloured

1595-1597

Substance white 1598, 1599

b Coriacea *Pileus* coriaceous, villous, zoned, usually in different colours

1600-1605

a Stupposa

1595 P radiatus Cooke (from the radiato-rugose pileus) *a b c*

P velvety to smooth, deep rich brown to dull orange, margin zoned bright sienna *T* colour as flesh *Po* minute, greyish-

salmon, silvery-glistening, at length ferruginous *Flesh* rigid, corky, leathery, dull orange

Imbricate Not perennial Trunks, beech, birch, oak, hazel, alder, gorse, frequent Oct-April P $4\frac{1}{2}$ in diam Must not be confounded with 1603

1595a P nodulosus Cooke (from the nodular pileus) *a*

P triquetrous, nodular, corky, woody, not zoned villous, rugose, rough, fulvous then rust-colour *T* somewhat long *Po* roundish, unequal, acutely torn, light cinnamon with a silvery sheen *Flush* very hard, lighter than *P*

Imbricate Dead beech Oct $2\frac{1}{2} \times \frac{3}{8}$ in Distinguished from 1595 by the at length confluent pores and by the absence of the brightly coloured margin of pileus

1596 P polymorphus Cooke (from its many forms, *Gr polus*, many, *morphe*, form) *a*

P smooth, somewhat pale vinous-brown, dark shaded, marg crisped *T* deeply decurrent *Po* somewhat large, angular, torn, colour as flesh *Flush* coriaceous, salmon

Connato imbricate Branches, worked wood, fir Aug Group 2 $\frac{3}{8}$ in diam P 1 in diam Sometimes resupinate

1597 P cryptarum W G Sm, *Boletus cryptarum* Bull (from its frequent habitat—cellars, *crypta*, a vault) *a b c*

P corrugate, zoneless, adpressedly silky, pale yellowish-vinous-brownish *T* deeply decurrent, long *Po* minute, colour as flesh *Flush* corky-cottony, paler than *P*

Connato imbricate Fir, frequent Group 4 $\frac{3}{8}$ in diam Transferred to *Fomes* by Cooke and Saccardo The same as 1608 according to Massee

1597a P ravidus Cooke (from the grey or tawny pileus, *ravus*, grey) *a*

P coriaceo-corky, flattened, zoned, villosa-rugose, ochreous, slightly tinged brown-olive, base darker, sienna *T* somewhat short *Po* larger at mid, then smaller and absent at marg, biscuit-white *Flush* ivory-white

Imbricate Stumps of old willows Spread $5\frac{3}{4}$ in, 1 in thick Colour variable, usually yellowish

1598 P gossypinus Cooke (from the white-cottony pileus, *gossypium*, cotton) *a c*

P tomentose, zoneless, marg slightly scaly, white *T* long, but varying *Po* labyrinthine, then angular, pallid cinereous

Somewhat connato imbricate Trunks, furze Jan Diam $2\frac{1}{2}$ in

1599 P fibula Fr (from its button shape *fibula*, a button) *a b c*

P velvety-hairy, zoneless, sometimes radiato-rugose, white *T* varying in length *Po* small at length torn, white, sometimes faintly sulphur

Single to subimbricate or in troops Wood in cellars, forests, elm, oak Oct-Jan P 2 in diam Sometimes shield like, attached behind a

- * centre of pileus, sometimes pendulous, at other times hoof shaped and triangular in section

b Coriacea

- 1600 P hirsutus** Fr (from the hairy pileus, *hirsutus*, hairy) *a b c*
P becoming plane, depressed behind, zoned with furrows, varying white, pale slate-brown or brassy-yellow, *z* yellowish-brown *T* long, deep, ochreous-white *Po* torn, whitish-salmon *Flesh* thin, corky-coriaceous, colour as *T*
 Single to imbricate, effused behind Dead trunks, branches, willow, oak, beech, poplar, plum Oct-Mar *P* 1½ in diam Pores much larger than in 1603
- 1601 P velutinus** Cooke (from the velvety pileus, *vellutinus*, velvet) *a b c*
P plane, slightly zoned, white to ivory-ochreous marg white *T* short, white *Po* minute, white to yellowish, marg barren *Flesh* corky-coriaceous, white
 Single to connato imbricate Stumps, branches, etc, willow beech, fir, birch, uncommon Nov Group 2½ in diam *P* 1½ in diam
- 1602 P zonatus** Fr (from the zoned pileus) *a b c*
P convex, tubercular-gibbous behind, villous, *z* unicolorous to varying ivory, ochre, brown, rufous, sienna, etc, or whitish-yellow, graduated and zoned sienna *Po* minute, biscuit *Flesh* corky-coriaceous, yellowish-white
 Single to subimbricate Trunks, elm, poplar, birch June-Oct *P* 3½ in diam
- 1603 P versicolor** Fr (from its variable colours) *a b c*
P even, velvety, shining pale smalt-blue, sooty-slate, or of various tints of ochre, ivory, brown or greenish *T* shallow *Po* minute, ivory, marg barren *Flesh* thin, rigid-coriaceous, ivory
 Imbricate Dead wood, fences, branches, encircling twigs, back of an old brush, oak, willow, alder April-Feb *P* 5½ in diam The tubes are sometimes bright orange or vermilion from the growth of a parasitic mould, *Hypomyces aurantius* When growing on sticks, if the stick is inverted, a new hymenial surface with pores will appear on the downward pileus Pores sometimes wholly eaten away by insects 1774 sometimes grows on this Var *fuscatus* Mass *P* brown *Po* torn into teeth, yellow
- 1604. P abietinus** Cooke (from its habitat, fir-trunks, *Abies*, fir) *a b c*
P villous, white, zoned dove-grey, marg sometimes purplish *T* very shallow *Po* unequal, pale slate, becoming pale brown to vinous- or purplish-sienna *Flesh* very thin, pale brown
 Connato imbricate, effuso reflexed Fir, cedar, cypress, common Jan-Nov Group 3½ in diam Pileus frequently overgrown by green algae Some times wholly resupinate with a broad white woolly margin Must not be confounded with 1610

1605 *P Wynnei* Cooke (after Mrs Lloyd Wynne) *a b c* •

P membranous, marked with silky raised lines, faintly brownish, yellow-white, sometimes orange or tan *T* varying in length
Po small, whitish

Effuso reflexed, almost wholly resupinate Running over twigs, grass, etc, around stems of *Carex paniculata* Sept-Dec Group 3 in diam Pore surface with barren places in middle and at margin

LXV *PORIA* Pers

(From the porous hymenium)

Resupinate, forming more or less extended patches or thin membranous expansions *Pores* forming a continuous stratum, springing from a thin, often rudimentary subiculum (Fig 80)

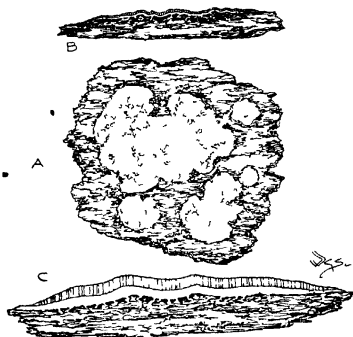


Fig 80—*Poria Wynnei* Cooke
a entire b in section One half natural size c section $\times 4$

This is almost entirely the section of *Polyporus* named *Resupinata* by Fries, the sequence adopted is that of the *Hymenomyces Europæi* Species 1605a—1648

<i>Pores</i> ferruginous or cinnamon	1605a—1609
<i>Pores</i> purple or violaceous	1610, 1611
<i>Pores</i> red	1612—1615
<i>Pores</i> yellowish	1616—1620
<i>Pores</i> at first white, changing colour	1621—1627
<i>Pores</i> usually persistently white, minute crowded, round, equal	1628—1635
<i>Pores</i> persistently white, unequal, angular, crowded, commonly somewhat large	1636—1643
<i>Pores</i> white, superficial, distant, punctiform	1644—1646
Of uncertain affinity	1647, 1648

- 1605a P obliqua** Achar (from the oblique growth of the tubes) *a c*
Sub very thin marg barren, sometimes recurved, forming a narrow P *T* more or less elongate owing to oblique growth, usually minute, $\frac{1}{10}$ to $\frac{1}{4}$ in long when not oblique, orange-brown or cinnamon, sometimes of two strata *Flesh* colour of Po
 Trunks, logs, rotting wood $4 \times 2\frac{1}{2} \times \frac{1}{4}$ in Regarded as a species of *Fomes* by Cooke and Saccardo
- 1606 P umbrina** Cooke (from its brown colour *umbrinus*, brown-coloured) *a*
 Undulato-tubercular, full to dingy umber marg smooth salmon- or vermilion-white, paler than pore-surface *Sub* thin but variable *T* somewhat long, varying *Po* minute, roundish, unequal, sienna
 Trunks $3\frac{1}{2}$ in *Fomes umbrina* Saccardo
- 1607 P resupinata** W G Sm, *Belctus resupinatus* Bolt (from its resupinate habit) *a*
 Undulato-tubercular, spongy-coriaceous umber, yellowish vinous-umber or ferruginous *Sub* thin fibrous *T* long, varying, sometimes stratosc *Po* minute, pore surface nodulose to plane, umber
 Broadly effused Trunks, branches, hazel Feb $3\frac{3}{4}$ in *T* is may be a resupinate form of 1560 or 1561 Compare 1605a *Fomes resupinata* Massee
- 1608 P ferruginosa** Karst (from its rusty colour, *ferrum*, iron) *a b c*
 Undulato-tubercular, ferruginous or cinnamon marg barren, sometimes reflexed as a narrow P, ochre or rust colour, with white mycelium at edges of new growths *Sub* thin but varying *T* long, varying, sometimes 2-stratosc or reduced to $\frac{1}{3}\frac{1}{2}$ in *Po* medium to minute, brown *Myc* white to ochreous
 Imbricate, broadly effused Trunks, branches, posts, sticks, abele, beech, oak, pine, alder, bramble, sometimes on dead leaves common Oct - May $5\frac{1}{2}$ in At first appearing as a confervoid stratum *Fomes ferruginosa* Massee
- 1609 P contigua** Karst (from its close investment of sticks, etc, *contiguus*, continuous) *a c*
 Somewhat plane, cinnamon or yellowish-sienna, dingy when old, marg barren *Sub* thin, from $\frac{1}{8}$ in to a membrane *T* short *Po* somewhat large, brownish *Myc* ochreous
 Effused, less so than in 1608 Trunks branches, sticks, rotten wood, etc, pines, sweet gale, maple, hornbeam, uncommon 3 in Sometimes wholly investing branches
- 1610 P violacea** Cooke (from its violet colour) *a c*
 Plane, purple with marg paler or whitish, or deep purplish to crimson-brown, with marg light or ivory, clouded rufous

Sub a film *T* short *Po* round or wrinkled as in *Merulius*

Effused, determinate Stumps, trunks, poles, fir, frequent Aug-May
4 in Allied to *Merulius* Must not be confounded with 1604, in which
the pores are deeper and torn and the margin reflexed

1611 P purpurea Cooke (from its purple colour) *a c*

Plane, purple-lilac marg barren, paler *Sub* a film *T* short,
Po minute *Myc* mucedinous, flocculose, white

Stumps, willow, beech $3\frac{1}{2}$ in The violet colour disappears in drying

1612 P incarnata Cooke (*incarnatus*, flesh-colour) *a c*

Plano-undulate, coriaceous, marginate or immarginate, dark flesh-
colour or orange becoming dark purple-brown-crimson or
purple-blackish marg broad, white or ochreous, sometimes
vinous-clouded, sometimes shortly reflexed as a narrow P
Sub a film *Po* short, unequal

Effused Fir rare June-Nov $6\frac{1}{2}$ in Sometimes with barren patches
Must not be confounded with 1604

1613 P rufa Cooke (from its reddish colour *rufus*, red) *a c*

Plano-undulate, umber, vinous-umber, blood-red-rufous or deep
reddish, marg barren, byssoid when young, greyish *Sub* a
film *Po* short

Litu ed Trunks, sticks, branches, etc, broom, beech, bird cherry $3\frac{1}{2}$ in

1614 P rhodella Cooke (from its rose-colour Gr *rhodon*, a rose) *a*

Plane, soft, white, flesh colour, vermilion-salmon or Indian-red-
salmon, marg determinate, salmon *Sub* a film *Po* short,
minute, not torn

Effused Trunks, fir, beech Aug $4\frac{1}{2}$ in Thinner than 1613

1615 P micans Ehrh (from its glittering pores *micare*, to glitter) *a c*

Plane, often with run-drop-like barren depressions on surface,
whitish-flesh or biscuit-colour, marg flavy, byssoid, white
Sub a membrane *T* short *Po* minute, irregular, angular

Effused, orbicular, confluent Dead wood, rotten trunks, ash Nov
 $3\frac{1}{2}$ in Fugacious

1616 P nitida Pers (from its shining pores, *nitidus*, shining) *a c*

Plane, bright yellow to pale sienna-yellow, marg villosa-
determinate *Sub* a membrane *T* short *Po* round,
minute

Effused, subadnate Dead wood rare Mar $3\frac{1}{2}$ in

1617 P læstadii Cooke (after C P Læstadius) *a b*

Plano tubercular, brittle, separable, bright lemon-yellow, whitish-
sulphur or ivory-salmon when dry marg not barren, edge
minutely and narrowly fibrillose *Sub* thin, white *T* short,
of different depths *Po* very minute, sinuous

Effused, sometimes stratose as if perennial Deal boards, sometimes in green-
houses Aug $3\frac{1}{2}$ in

1618. **P bombycina** Cooke (from the silky membranous subiculum, *bombyx*, silk) *a b c*

Sub very thin, translucent marg byssoid *Po* large, angular, sinuous marg arachnoid-velvety, pale buff or white

Effused Rotten wood rare Sept 3 in The grain of the wood some times shows through the extremely thin substance

- 1619 **P aneirina** Cooke (from the margin not being woolly as in 1618, Gr *an*, not, *arines* woolly) *a c*

Sub thin, coriaceous, somewhat flaxy marg byssoid *Po* shallow, large, waxy, fulvous, tawny, warm biscuit-colour or bright orange-yellow marg flaxy, becoming waxy, white *Myc* buff-white

Effused Dead wood branches poplar pine under the bark rare Oct 4 in Contracting and becoming torn in drying

- 1620 **P ramentacea** Cooke (from one of its habitats, chips *ramenta*) *a b*

Sub thin, tomentose white *Po* somewhat large hexagonal, honey-colour marg almost obsolete, irregular warm-ivory

Somewhat orbicular Dead branches, fir Sept 14 × 1 in Cartilaginous and horny when dry Barren patches occur on the hymenium

- 1621 **P cineta** Cooke (from the encircling, erect strigose fibres, *cinco* to encircle) *a* White to ivory

Sub membranous, sometimes barren and with lacuna marg byssoid *Po* extremely minute

Old deal boards rotten planks rare 3½ in Patches of vertical *strigæ* become confluent and form a subiculum

- 1621a **P fuscocarnea** Cooke (from the brownish flesh-colour, *fuscus*, dark brown, *caro*, flesh)

Sub thin marg definite *T* 1½ to 1, in long *Po* minute, fawn-colour when fresh or vinous brown, graduated paler

Rotten wood, putrid trunks 3½ × 3 in

1622. **P armeniaca** W G Sm, *Polyporus armeniacus* Berk (from its apricot-colour *armeniaceum*, apricot) *a b*

Sub membranous to ¼ in or more thick marg thin, well defined, minutely downy or byssoid *Po* shallow, to ⅙ in deep, rounded, somewhat irregular minute white, then bright buff, or glancing with the light, ochreous on side view, bright foxy-brown on full view

Broadly effused, suborbicular, confluent Bark, pine Nov-April 3½ × 1½ in Sometimes a rugged free pileus is formed Cooke refers this to 1566, but the spores are different in shape and size

- 1623 **P Rennyi** Cooke (after James Renny) *a b*

Sub thin to somewhat thick, pulvinate, at first somewhat frothy, then dry and pulverulent, marg byssoid *Po* minute, few, irregular in depth, here and there elongated, white, becoming lemon or pale buff *Myc* gelatinous, partly byssoid

Odour pungent On the ground, rotten wood, running over *Marchantia*, fir Nov 2½ × ¾ in Pores sometimes absent or subiculum with large barren patches

- 1624 P subfuscoviridis** Cooke (from the pale brownish-yellow colour, *subfuscus*, somewhat dusky, *viridis*, yellow) *a c*
Sub thin, coriaceous, dry, marg thin, byssoid, determinate, white *Po* minute, irregular, white, then yellowish-brown or glancing white and grey-brown
 Broadly effused, confluent Dead oak wood, planks, etc 2½ in
- 1625 P viridans** Cooke (from its pale æruginous colour, *virido*, to become green) *a c*
Sub thin *Po* minute, shallow, white, ivory or pale buff, then pale verdigris, marg pulverulento-tomentose
 Effused, crustaceo adnate Rotten wood, rare Sept 2½ in Sometimes a mere thin, pale æruginous film without pores
- 1626 P terrestris** Cooke (from its terrestrial habit) *a c*
Sub very thin, marg arachnoid flaxy, fugacious with a byssoid white edge *Po* shallow, minute, angular, becoming smaller and scattered towards the wide, barren marg, white, becoming pale amber or faintly rufescent
 Effused Black earth, red clay, rotten wood, uncommon May-Nov 4 in
- 1627 P subgelatinosa** Cooke (from the somewhat gelatinous subiculum) *a b*
 Orbicular, forming small pulvinate masses with an obtuse raised border, at first tomentose and pallid, becoming black and subgelatinous *Po* somewhat large, others small, variable in size, pale grey
 On dead wood, on 1666 1½ in
- 1628 P medullapanis** Cooke (from its colour like pith or bread, *medulla*, pith, *panis*, bread) *a b c*
 Somewhat undulate, firm marg barren, whitish, sometimes upturning and separating from matrix *T* somewhat long *Po* medium size
 Decayed branches, mulberry, oak, hornbeam, on the ground uncommon Sept-Feb 4½ in Sometimes in certain positions 4-6 stratose
- 1629 P mucida** Pers (from its mucid substance) *a c*
Sub somewhat thick, soft, elastic, marg barren, indeterminate, flaxy *Po* shallow, medium size, unequal, torn, white to ochre-white *Myc* spreading and often forming small orbicular, transparent, barren patches
 Effused in long patches Decayed fir 3½ in Thicker than 1634
- 1630 P vitrea** Pers (from its shining glassy appearance as if wet, *vitrum*, glass) *a c*
Sub somewhat thick *T* somewhat long, translucent, whitish *Po* minute, entire, roundish, whitish, becoming buff-white or vinous-buff-whitish
 Broadly and unequally effused Dead wood, fir, on the ground under beech, uncommon Aug-Mar 3½ in With the appearance of shining wax

1631. P obducens Cooke (from the covered-over or superimposed strata, *obduco*, to cover over) *a c*

Sub a hard, almost obsolete, inseparable film *T* somewhat long $\frac{1}{16}$ to $\frac{1}{8}$ in *Po* minute, white, becoming pale dull salmon

Effused Rotten trunks, pine, oak, beech, rare July-Feb $3\frac{1}{2}$ in Bresadola says this is a resupinate form of **1594**, Massee of **1589** During the first year it resembles **1633** Irregular in section, perennial by strata for six or more years

1632 P callosa Cooke (from the hard subiculum, *callum*, hardened skin) *a c*

Sub a firm, somewhat thick, leathery membrane, separable from the matrix, white, becoming umber *T* somewhat long *Po* round, equal, entire, white becoming biscuit marg white

Broadly effused Dead wood, oak, maple April $3\frac{1}{2}$ in Surface sometimes with small depressions as if from rain drops Annual, not stratose

1633 P vulgaris Cooke (from its commonness, *vulgaris*, common) *a c*

Sub a membrane, closely adnate to the matrix, almost obsolete *Po* somewhat shallow, white to biscuit or faintly ochreous, sometimes with a white, irregular barren marg, attached to thin, white, cloud-like growths of mycelium, marg soon even and smooth

Broadly effused Dead wood, branches, pine oak, beech, common July-Mar $5\frac{1}{2}$ in Patches often very large, sometimes wholly investing branches, sometimes with vacuoles Annual not stratose Appearance wax like

1634 P mollusca Cooke (from its softness *molluscus*, soft) *a b c*

Sub a membrane *Po* somewhat shallow, large in middle, smaller towards marg, white becoming pale biscuit or brownish-white, marg broad, barren, white, radiate with white strands of mycelium

Broadly effused Dead wood, dead leaves, furze, poplar, ash, common Jan-Dec $4\frac{1}{2}$ in Sometimes proliferous or 2 stratose

1635 P collabefacta Cooke (from the pores which appear to arise from the collapsing substance, *collabefio*, to be brought to ruin) *a b*

Sub a membrane *Po* minute, shallow, white to ivory, marg obtuse, barren, with a few barren places on surface

Effused Dead wood Oct $3\frac{1}{2}$ in Running over the matrix like a thin *Corticium*

1636 P sanguinolenta Cooke (from its changing to blood-red where bruised, *sanguis*, blood) *a b c*

Sub a membrane *T* somewhat shallow *Po* small, irregular, becoming torn, white to yellowish-white

At first nodulose, soon confluent and effused Decayed trees and branches, rails, dead wood, running over earth, clay and moss, uncommon Aug-Nov $2\frac{1}{2}$ in

- 1637 P radula** Pers (from the small teeth, as of a comb, where the pores are elongated *radula*, a scraper) *a c*

Sub a membrane, separable from the matrix *T* shallow, somewhat long in middle, sometimes 2-stratose *Po* tooth-like or comb-like, spinous near the sometimes barren marg, white to biscuit, not turning red

Effused Trunks, branches, fir, oak, hornbeam Surface with small depressions, sometimes with barren places Aug-Jan 3½ in

- 1638 P vaporaria** Cooke (from the warm, moist air, in which it luxuriates, *vaporarium*, a stove) *a b c*

Sub a thin, firm, inseparable membrane *P* shallow, large, torn, white to ivory

Broadly effused Moist woods on dead branches, decaying wood, rails, pine, oak, poplar, alder bamboo, running over dead leaves, on root wounds, barked and injured places, squared timber in buildings, very common Jan-Dec 4 in Hartig states this fungus to be as destructive as the 'dry rot' fungus 1680 on living spruce and pine *Ceromyces (Psychogaster) rubescens* is said by Saccardo to be an imperfect state of this *Var scimitalis* Mass separating from the matrix, white, then honey colour, fir leaves under moss

- 1639 P hibernica** Cooke (from the place where first observed, Wicklow, Ireland) *a*

Sub a membrane, not separable from matrix *Po* small, shallow, polygonal not fimbriate-toothed white marg narrow, thin radiate byssoid

At first small, orbicular, then confluent and broadly extended Decorticated fir branches Sept 5½ in

- 1640 P Gordoniensis** Cooke (after the Marchioness of Huntly) *a c*

Sub a thin, extremely delicate film, separable from matrix *Po* minute, fimbriate toothed shining white, becoming faintly yellowish-white marg broad barren white

Somewhat effused Fir poles Feb 2½ in Closely re-embling 1639 in general appearance

- 1641 P Vaillantii** Cooke (after Leon Vaillant French botanist) *a b c*

Sub a thin film here and there traversed by ribs *Po* rather large, shallow produced here and there in clusters white or slightly rufescent marg broad, barren, bordered by broad barren radiating growths ending in strands of mycelium

Broadly effused Dead wood April-Oct 6 in

- 1642 P farinella** Cooke (from the pulverulent margin *farina*, meal) *a c*

Sub a very delicate thin film *Po* shallow, with a ragged, toothed appearance marg broad, barren, unwoven, edge pulverulent

Broadly and irregularly effused Old timber, dead wood, beech, oak, pine, cedar Dec-Mar 4½ in Fugacious to the touch

- 1643 P hymenocystis** Cooke (from the cyst-like pores of the hymenium) *a b*

Sub very thin, arachnoid *Po* large, shallow, irregular, dissepiments scarious collapsing, white, becoming pallid marg narrow, byssoid

Black, rotten wood 4 in

- 1644 P blepharistoma** Cooke (from the eyelid-like appearance of the pores, Gr *blepharon*, an eyelid, *stoma*, a mouth) *a b*

Sub a thin film *Po* small, dissepiments thin, edge finely toothed, white, marg barren, edge minutely byssoid, somewhat mealy *Mj* arachnoid

Dead wood, decorticated branches, leaf mould July–Nov 4 in

- 1645 P corticola** Cooke (from its growing on bark *cortex* bark, *colo*, to inhabit) *a*

Sub a film, firm *Po* very minute, often obsolete, or in small irregular patches white to biscuit, marg radiate, byssoid

Poplar, birch, horse chestnut in 3½ in

- 1646 P reticulata** Cooke (from the net-like hymenium *rete*, a net) *a c*

Sub a thin film *Po* cup like, somewhat large white marg barren, radiato-floccose or byssoid

Orbicular, confluent Rotten wood Sept–Feb 4 in Very delicate, soon disappearing

- 1647 P bathypora** Cooke (from the deep cup-like pores Gr *bathus*, deep, *poros* a pore) *a*

Sub a thin film *Po* cup shaped somewhat large dissepiments toothed, white, becoming brownish marg flav

Effused Dead oak, beech 3½ in Sometimes 2 strata Resembling the resupinate form of 1660

- 1648 P hybrida** Cooke (from the possibility of its being a monstrous form of 1559) *a b c*

Sub a thick felt like membrane, white, sometimes branched, sometimes forming small inflexed superimposed white pilei

Po very minute to large, shallow to ¼ in deep torn, white to biscuit marg irregularly radiato-branched

On oak in ships, etc causing "dry rot" Jan–Dec 7 in Sometimes a mere radiato branched white membrane with a few small patches of pores or forming pendulous masses from horizontal beams with tubes beneath

LXVI TRAMETES Fr

(From the generic distinction depending on the *trama*—the substance which grows between the membranes of which the dissepiments of the pores are composed)

Trama continuous and homogeneous with the flesh of the pileus
Pileus, when present, woody, corky-woody, corky or soft *Stem*

none *Tubes* unequal in length, rarely stratose *Pores* subround, more or less elongated radially, not labyrinthiform, entire, often unequal in depth, dissepiments somewhat thick (Fig 81)

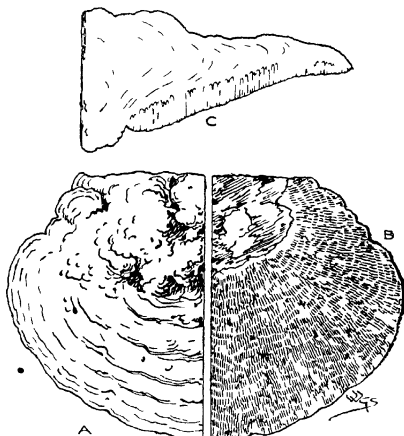


Fig 81—*Trametes pini* Fr. One half natural size
A upper surface B lower surface C section

Several species are fragrant of rose never acid Growing on wood

Intermediate between *Polyporus* and *Dædala*

Species 1649—1657a

a Apoda Without a stem

Substance coloured

1649

Substance white or whitish

1650—1654

b Resupinata Resupinate

1655—1657a

a Apoda

1649 **T Pini** Fr (from its habitat, pine) *a b c*

P pulvinate, sulcato-rugged, sienna to deep sepia, marg yellowish *T* somewhat long, brown-yellowish to bright ferruginous, rarely stratose *Po* large irregular, oval *Flesh* corky-woody, brownish to deep sienna

Odour faint, pleasant Trunks, pine, fir, larch, rare Sept—Oct 5½ in Often covered with algae and lichens Hartig states that this fungus is the cause of the diseases known as "bark shake" and "ring shake" or "heart-shake" The same as *Polyporus Dumoffii* Lev according to Bresadola.

1649a T cinnabarina Fr (from the red-vermilion colour of the pileus, Gr *kinnabari*) *a*

P fleshy, corky, convexo-plane, pubescent to glabrous, somewhat zoned, rugulose, red-vermilion, not dark *T* and *Po* somewhat crimson

Connate Trunks, birch, beech, etc Oct $3\frac{1}{2} \times \frac{3}{4}$ in, projection 2 in

1649b T Trogii Berk ex Trog (after J G Trog) *a*

P fleshy, convex, somewhat zoned, pilose, buff-white to pale buff *T* white-buff *Po* variable in size, subangular, toothed *Flesh* white

Connate imbricate Dead aspen Oct $5 \times 2\frac{1}{2}$ in, projection $1\frac{1}{2}$ in

1650 T gibbosa Fr (from its thickness and convexity, *gibbus*, gibbous) *a b c*

P pulvinate, velvety, somewhat rugged behind, absolutely zoned and tuberculate, whitish-ochre, greyish at the obtuse marg

T long, faintly brownish-yellow *Po* round, oval, colour as *P* *Flesh* corky, compact, yellowish-white

Sometimes imbricate Odour slight of anise when fresh Stumps, posts, rails, oak, beech, willow, poplar, not common Oct-Feb 6 in Not always gibbous, sometimes thin

1650a T rubescens Fr (from the pores becoming salmon-red) *a*

P dimidiate, corky, thin, smooth, at length rugoso-zoned, white to rose-salmon and olive-brown densely pulverulent *Po* roundish, irregular, white-salmon, clouded rose-colour

Salix caprea Oct $1\frac{1}{2} \times 1\frac{1}{4}$ in Pores and flesh changing from white to crimson on being scratched

1651 T Bulliardii Fr (after Pierre Bulliard) *a c*

P pulvinate, whitish, yellowish or brownish, sometimes zoned dark brown, marg greyish or pale ochre *T* long, vinous-yellowish *Po* large, irregularly roundish or sinuous *Flesh* faintly brownish-white, becoming fuscous

Fragrant Dead wood Sept-Oct $5\frac{1}{2}$ in Closely allied to *Dadaha*

1652 T suaveolens Fr (from its fragrance, *suavis*, sweet) *a b c*

P pulvinate, villous, sometimes rugged, zoneless, whitish *T* long, sometimes irregular or short, whitish *Po* roundish, whitish, becoming fuscous *Flesh* corky-soft, whitish or dull straw-colour

Often imbricate Odour of anise till dry Trunks, willow, lime, etc, uncommon Oct-Dec $6\frac{1}{2}$ in Often enveloping grass and twigs

1653 T odora Fr (from its fragrance, *odori*) *a*

P pulvinate, uneven to smooth, zoneless, ivory-white or grey-whitish *T* shorter than in 1652, white or pale buff-white *Po* minute, roundish, half the size of 1652 *Flesh* corky-elastic, white

Willow, rare Jan $3\frac{1}{2}$ in

- 1654 T inodora** Fr (from its being scentless, *inodorus*) *a*
P expanded, thin, tomentose, smooth, zoneless, white or greyish-white *T* long, unchanging white *Po* minute, roundish
Flesh corky-firm, white
 Stumps, beech 2½ in

b Resupinata

- 1655 T mollis** Fr (from its soft substance *mollis*, soft) *a b c*
Sub somewhat membranous, whitish *T* shallow *Po* large, cup shaped, irregular, yellowish- or brownish-white, becoming fuscous, then black marg broadly barren, determinate, then revolute, pubescent beneath
 Often broadly effused Dead wood, beech common Jan-Dec 4½ in
 Probably lasting for two years

- 1656 T Terryi** B & Br (after Michael Terry) *a*
Sub pulvinate, corky suborbicular, 1 in thick whitish, marg determinate, undulate *T* shallow 4-stratose in examples first found *Po* irregular with thin walls *Flesh* dry, with 4-5 annual growths, white
 Odour none Beech 4 in

- 1657 T serpens** Fr (from its frequent sinuous creeping habit, *serpens*, creeping) *a b c*
Sub somewhat pulvinate, 1½-1 in thick and, white *T* shallow to somewhat elongate *Po* large somewhat round, unequal, ivory-white marg barren, determinate pubescent
 At first orbicular, soon confluent Hornbeam, privet, oak, oak chips in tan pits, squared oak timber, beech Aug-Jan 5½ in *Polyporus Stevensii* B & Br Must not be confounded with 1553

- 1657a T purpurascens** B & Br (from the hymenium becoming purple)
Sub somewhat leathery, subtomentose, chestnut *T* rigid, becoming purple *Po* small
 Dead willow ¾ in

LXVII DÆDALEA Pers

(From the Cretan labyrinth made by Dædalos—in reference to the intricate, labyrinthine pores)

Agreeing with *Trametes*, except in the firmer and sometimes thicker dissepiments of the pores, which, when fully grown are irregularly sinuous or labyrinthine, the floccose substance of the hard pileus descending unchanged into the trama (Fig 82)

Inodorous

Species 1658—1666

Corky-woody, dimidiate, sessile

1658—1661

Coriaceous, dimidiata, sessile	1662, 1663
Resupinate	1664, 1665
Resupinate or effuso-reflexed, of uncertain affinity	1666

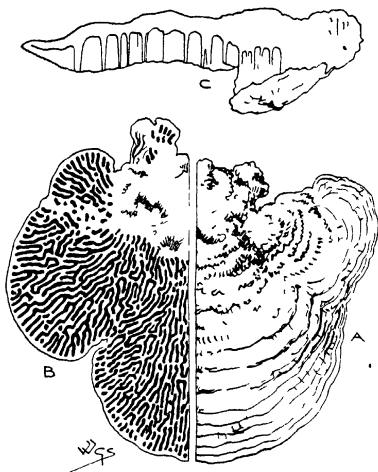


Fig 82 — *Dædalea quercina* Pers One half natural size
A upper surface B lower surface C section

1658 *D. quercina* Pers (from its habitat—oak, *quercus*) *a b c*

P somewhat zoned, rugulose, uneven, somewhat smooth, buff-brown, darker behind *T* long *Po* at first simple, then labyrinthine, edge obtuse, whitish-salmon *Flush* pale sienna

Single or imbricate, perennial Sometimes on squared timber Jan -Dec 7 in Sometimes resupinate Occurs in peat beds in the eastern counties and in the lake side pile dwellings of Switzerland and Italy

1659 *D. aurea* Fr (from its golden colours, *aurum*, gold) *a c*

P somewhat zoned, rugulose, uneven, coarsely velvety, orange- or yellowish-brown *T* somewhat long *Po* simple then sublabyrinthine, opaque sienna-orange *Flush* sienna-white

Single to imbricate Dead oak 2½ in Pores usually rounder than 1658

1660 *D. confragosa* Pers (from the rugged pileus, *confragus*, rough) *a b*

P roughly rugulose and zoned, buff- or liver brown *T* somewhat long *Po* moderately large, chiefly round and oblong, or

sublabyrinthine, pale umber, becoming darker *Flesh* pale sienna

Single, rarely subimbricate Oak, willow, poplar, beech, service Oct - Feb $5\frac{1}{2}$ in In drying smells of stinking fish

- 1661 D cinerea** Fr (from its ashy pileus *cinereus*, ash-colour) *a c*
P undulate, zoned, tomentose, whitish-umber to greyish, z darker *T* somewhat long *Po* round to oblong and labyrinthine, whitish to ashy or biscuit *Flesh* white to biscuit
 Single to imbricate, perennial Dead trunks Jan - Dec $4\frac{1}{2}$ in

- 1662 D polyzona** Pers (from the many-zoned pileus Gr *polus*, many) *a c*
P tomentose, yellowish-brown, darker or reddish behind, z dark brown *T* somewhat long, sometimes in two strata *Po* sublabyrinthine, buff-white *Flesh* somewhat thin, buff-white
 Imbricate Jan - Dec $5\frac{1}{2}$ in

- 1663 D unicolor** Fr (from its single colour, *unus*, one, *color*, colour) *a b c*
P somewhat, rugged, villosa-strigose zoned, yellowish-brown *T* moderately long *Po* labyrinthiform sometimes of two strata, pale buff *Flesh* pale buff
 Single to imbricate, sometimes resinate and effused with small development of pileus Stumps, rails, birch, beech, acacia, maple, oak, willow, chestnut, hornbeam, common Jan - Dec $4\frac{1}{2}$ in *Flesh* sometimes much eaten by larvae

- 1664 D latissima** Fr (from its broadly spreading habit, *latus*, broad) *a b c*
Sub from a film to $\frac{1}{4}$ in thick, undulate *Po* of varying depths, small round to sublabyrinthine, narrow, distant, colour of washleather, marg barren
 Dead wood branches, beech, rare 5 in Sometimes effused for 2 ft

- 1665 D vermicularis** Pers (from the colour, or the worm-like shape of the pores, *vermis*, a worm) *a*
Sub thin to $\frac{1}{2}$ in *Po* shallow partly elongated to $\frac{1}{2}$ in deep, sinuous, round near the barren marg very pale salmon, or partly white and partly pale flesh-colour
 On the ground, in contact with wood and earth Aug $5\frac{1}{2}$ in

- 1666 D ferruginea** Schum (from its colour of iron-rust *ferrum*, iron) *a*
P at first white-villous, becoming yellowish sienna or yellowish-brown, z 2-3, umber *T* $\frac{1}{2}$ in deep, round to sublabyrinthine, tawny or yellowish-sienna, marg barren, white-villous *Flesh* $\frac{1}{8}$ in, pale yellowish-sienna
 Imbricate connate Dead wood $1\frac{1}{2}$ in

LXVIII **MERULIUS** Halle

(From the common colours of the hymenium yellow or orange, or partially black the colours of the beak and plumage of the blackbird, *merula*)

Resupinate *Pileus* when present, effuso-reflexed *Stem* none
Hymenophore a soft, woven mucedinous mycelium, covered with the



Fig 83—*Merulius lacrymans* Schum. entire and section above. One third natural size

waxy-soft, porous, gyrose or obsoletely toothed hymenium *Spores* white or ferruginous On wood, sawdust, leaves, mosses, etc., rarely on the ground (Fig 83) Species 1666a—1681

a Leptosporæ *Spores* white

Pileus effuso-reflexed, circumference determinate

1666a—1669

Resupinato-effused, flaxy-membranous, separating, flaxy beneath and at the circumference

1670—1674

Crustaceo-adnate, somewhat flaxy at the circumference

1675—1679

b Coniophoræ *Spores* ferruginous *Hymenium* at length pulverulent with spores

1680, 1681

a Leptosporæ

1666a M confluens Schwein (from the habit, small growths becoming confluent into large patches) *a*

Resupinate, longitudinally effused, somewhat fleshy, vinous biscuit colour marg free, inflexed, submentose, biscuit-colour *Po* very small, uneven, reticulate

When the small patches become confluent, the lines of junction become raised as irregular hexagons Branches, alder Aug Small growths papillate, about $\frac{1}{8}$ in diam Confluent masses about 3-4 in

- 1667 M tremellosus** Schrad (from the tremulous substance) *a b c*
P dentato-squarrose near marg, yellowish-white, salmon shaded
Po pale ochre to yellowish-white, brownish-ochre at base,
 marg barren, white *Flesh* fleshy-tremellose, approaching
Tremella, very pale blue-grey and pale salmon
 Connate imbricate Odour strong, fungoid Decayed trees, wood, beech,
 birch, oak, rare Aug-Feb 6 in At first resupinate Hymenium
 usually rich vinous brown when dry
- 1668 M aurantiacus** Berk (from the colour, *aurum*, gold) *a*
P tomentose, sometimes zoned, dull yellowish-white, or ashy
Po somewhat poriform, minute, dull orange, marg broad,
 barren *Flesh* fleshy-coriaceous
 Dead trunks, beech, rare May 1½ in
- 1669 M corium** Fr (from the thin leather-like subiculum, *corium*,
 skin, leather) *a b c*
P becoming slightly reflexed, paper-like, zoned, villous-hairy,
 separating, white *Po* small, gyrose or pore-like, flesh-colour,
 pale tan, orange-yellow, orange or sienna-orange, marg broad
 barren, white *Flesh* soft
 Dead wood, trunks, branches, hornbeam, oak, furze, moss, sometimes on old
 beams, etc, in houses, sometimes pendulous, like a small inverted cup,
 common Mar-Jan 6¼ in
- 1670 M læticolor** B & Br (from the colour, *lætus*, bright) *a*
Po at first obsolete, then plicato-rugose, distant, bright orange,
 marg broad, barren, white
 Coarse sawdust and leaves, oak, pine, mountain ash Nov 3 in
- 1671 M aureus** Fr (from the colour, *aureus*, golden) *a c*
Po large, walls thin, plicato-porous, orange or golden-yellow,
 marg broad, barren, sulphur
 Pine boards, pine leaves and cones Oct 2½ in Hymenium dark brown
 when dry
- 1672 M himantoides** Fr (from the thong-like shape of the folds of
 the hymenium Gr *himas*, a thong, *eidos*, appearance) *a b c*
Po porous to gyrose, folds tooth- or thong-like, yellow to dull
 ochre or yellow-olivaceous, marg barren, white or sulphur
 Dead wood, fir, cherry, club moss, rare Sept-Dec 7½ in Hymenium
 olive or dark brown when dry
- 1673 M molluscus** Fr (from the soft substance, *molluscus*, soft) *a b c*
Po large, round, poroso-gyrose, flesh-colour, deep carnation or
 ochre to rich orange, marg broad, barren, white *Hym*
 rufous or vinous-brown when dry
 Wood, branches, fir, sometimes spreading over and conjoining fallen twigs,
 uncommon Sept-Feb 8 in
- 1674 M fugax** Fr (from its collapsing hymenium and fugitive
 habit, *fugio*, to flee) *a b c* Byssoid to membranous, very
 thin
Po reticulate, feebly developed and soon collapsing, white to

yellowish-white, marg very broad, barren, white *Hym*
brown when dry

. Bark, pine, alder Nov-Jan $3\frac{1}{2}$ in Pores sometimes not developed

1675 M porinoides Fr (from the poriform folds of the hymenium)
a b c

Po large, round, dissepiments feeble, pale dull yellowish or
brownish-ochre, marg broad, barren, white to yellowish-white

Dead wood, chips, bark, fir, on the ground, rare Sept $4\frac{1}{2}$ in

1676 M rufus Pers (from the reddish hymenium, *rufus*, reddish)
a b c Waxy-soft

Po regular, round, medium to small, red-sienna, or light to dark
vinous-brown, marg obsolete or narrow and irregular, barren,
colour as *Po*

Often effused Dead wood, oak, willow uncommon May-Feb $3\frac{1}{2}$ in
Vinous blackish when dry Greatly resembling a resupinate *Polyporus*

1677 M serpens Tode (from its wavy, creeping habit, *serpo*, to
creep) *a b c* Inseparable, thin

Po wrinkled to round, angular, entire, dissepiments sometimes
feeble, pale to ochreous-salmon or red, marg broad, barren,
white *Hym* dark vinous- or rufous-brown when dry

Fir, lime, ash, cedar, cones, rare Oct-Mar $6\frac{1}{2}$ in

1678 M pallens Berk (from its pale colour, *pallio*, to be pale) *a b c*
Inseparable, somewhat gelatinous

Po round but variable, minute to somewhat large, feebly
developed, pale reddish- or brownish-salmon, sometimes
orange-brown, marg indeterminate barren *Hym* pale purple-
umber to deep vinous-brown when dry

Fir, oak, rare June-Dec $3\frac{3}{8}$ in

1679 M Carmichaelianus Berk (after Capt Dugald Carmichael) *a c*
Confluent, very thin

Po large to small, often hexagonal very shallow, with feeble
dissepiments, white, marg narrow, obsoletely punctate, edge
finely lacinate

Bark $3\frac{1}{2}$ in Brown when dry

b Coniophoræ

1680 M lacrymans Schum (from the watery drops on the fully
developed hymenium, *lachryma*, a tear) *a b c*

Spongy-fleshy, arachnoid-velvet below, sometimes reflexed with
a small extended rugose whitish more or less imperfect *P*
Po large, round to gyrose-toothed, sienna-orange, yellowish
towards the barren tomentose white or salmon marg *Flesh*
grey-whitish-flesh colour or vinous-brown *Hym* dark brown,
sometimes almost black when dry

Odour very strong, fungoid, penetrating Dressed wood in buildings, spread
ing over brickwork, plaster, mortar, carpets, etc Does not grow out
of houses in this country Jan-Dec 1 ft $5\frac{1}{2}$ in The fungus of "dry
rot" The flesh gives a red stain to paper like 1517 Var *pulverulentus*

Fr, a membranous form, with a somewhat more feeble development of pores than in type. Must not be confused with 1884, a plant which has no pores.

- 1681 *M squalidus* Fr (from its squalid appearance) *a b c* Smooth, with extensive barren places

Po large to small, somewhat sinuous, hyaline flesh-colour, marg broad, barren, paler, fibrillose at edge *Hym* dull, dark vinous-umber or purple slate black when dry

Hornbeam, posts, dressed wood Feb $3\frac{1}{2}$ in

- 1681a *M Guillemoti* Boud (after M Guillemot) *a*

P dimidiate, imbricate, smooth, white, becoming greyish with age

Po gyrose, subgelatinous, fulvous to brassy-orange, slightly olive, pulverulent with spores *Flush* white to pale lavender

On posts, palings, willow June-sept $4\frac{1}{2} \times 2\frac{3}{4}$ in projection $2\frac{3}{4}$ in

LXIX POROTHELIUM Fr

(From the perforate tubercles, spines or teat-like teeth,
Gr *poros*, a pore, *thelē*, a teat)

Subiculum more or less membranous, bearing obtuse, or elongate, distinct papillæ, which are at first closed, then open in the form of pores or tubes. On dead branches, etc (Fig 84)

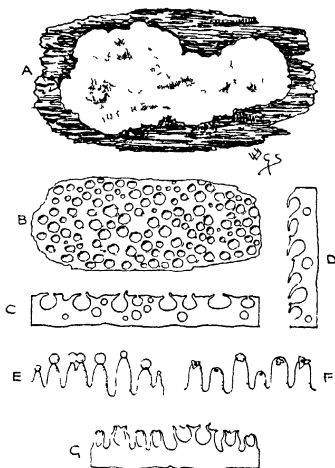


Fig 84 — *A Porothelium fimbriatum* Fr. one half natural size B pores C section when grown horizontally D ditto when grown vertically $\times 10$ E *P. Friesii* Mont, papillæ from a damp position F ditto from a dry position G section $\times 10$

Closely allied to *Fistulina*, with which it agrees in the fimbriate mouths of the free tubercles or tubes. The tubes frequently distil drops of fluid in damp positions. The appearance commonly somewhat resembles effused groups of minute *Æcidia*.

Species 1682—1686

Massee places this genus in *Hydnaceæ*.

Fries has made *Solenia* follow *Porothelium*, but in *Solenia* each cup or cylinder is a complete plant, not a mere tube. To find a place in the *Polyporaceæ* each cup should be furnished with tubes. The true place for *Solenia* is after *Cyphella* in the *Thelphoraceæ*.

1682 P fimbriatum Fr (from the fimbriate margin of the subiculum)
a c

Sub separable. *Pa* hemispherical, immersed, small, biscuit-colour, marg broad, barren, fimbriate, white.

Birch, beech 3½ in. General appearance much like the pore surface of a minutely pored resupinate *Polyporus*. *Pa* sometimes distinct. Often with extensive barren places on subiculum.

1683 P Friesii Mont (after Elias Fries) *a b c*

Sub less fimbriate than 1682. *Pa* hemispherical, immersed, somewhat larger than in 1682, varying from minute to larger, ivory or pale brown.

Pine, juniper. Sept–Feb. 3 in.

1684 P Stevensonii B & Br (after the Rev Dr John Stevenson) *a*

Sub somewhat thick, gelatinous. *Pa* elongate, whitish or pale yellowish, each bearing a diaphanous, yellow globule, marg rather coarsely hispid, then more or less denuded.

Pine, squared pine 3½ in. The mycelium imparts a sweet scent to the wood.

1685 P Keithii B & Br (after the Rev Dr James Keith)

Sub adnate, gelatinous in centre. *Pa* short, collapsing, pallid, marg very thin, at first somewhat gelatinous.

Dead fir. April.

1686 P confusum B & Br (from its having been confounded with other members of the genus)

Sub adnate, at first floccoso-pulverulent. *Pa* very small, pallid, marg thin, arachnoid.

Fir sticks. June–Sept.

FAM III HYDNACEÆ.

Hymenium inferior in the stipitate and dimidiate species, superior in the resupinate series, bearing from the first persistent spines, teeth, tubercles, papillæ or wart-like folds

Basidia tetrasporous except in *Kneiffia*, where they are monosporous, *Mucronella*, which has been described as monosporous, is sometimes tetrasporous

Species 1687—1780

KEY TO THE GENERA

Pileate		
Gelatinous		71 TREMELLODON
Fleshy	Teeth flattened, irregular	72 SISTOTREMA
Pileate or resupinate	Fleshy Spines acute, distinct at base	70 HYDNUM
Resupinate		
Hymenium bearing somewhat acute teeth which spring from folds or ridges		73 IRPEX
Hymenium bearing teeth in the form of coarse deformed tubercles		74 RADIIUM
Hymenium covered with folds or wrinkles		75 PHLEBIA
Hymenium covered with granules—		
Apices excavated		76 GRADINIA
Apices penicillate		77 ODONTIA
Hymenium covered with minute acute spicules		78 KNEIFFIA
Hymenium bearing teeth in the form of long scattered usually distant bristles Subiculum nearly obsolete		79 MUCRONELLA

LXX HYDNUM L

(From the Greek name for a truffle, *hydnon*, appropriated without reason by Linnæus for this genus)

Hymenium inferior in the first four series, superior in the fifth
Spines awl-shaped, acute, distinct at the base (Fig 85)
 Species 1687—1745

MESOPODÆ Stem central Terrestrial, chiefly in pine woods

a Carnosæ *Pileus* fleshy, somewhat fragile, stem solid
 Mostly edible

Pileus scaly or tomentose *Spines* changing colour
 1687—1690

Pileus even, smooth *Spines* changing colour 1691—1693
Spines unchangeable, unicolorous, whitish, or pale shades of
 ochre, buff or brownish 1694—1697

- *b Lignosæ* *Pileus* corky or coriaceous
Spines changing colour, and, as well as the spores, somewhat fuscous 1698—1700
Spines changing colour, and, as well as the spores, ferruginous 1701, 1702
Spines unchangeable, spores whitish 1703—1706

PLEUROPODÆ

- Stem* lateral, somewhat dimidiate 1707

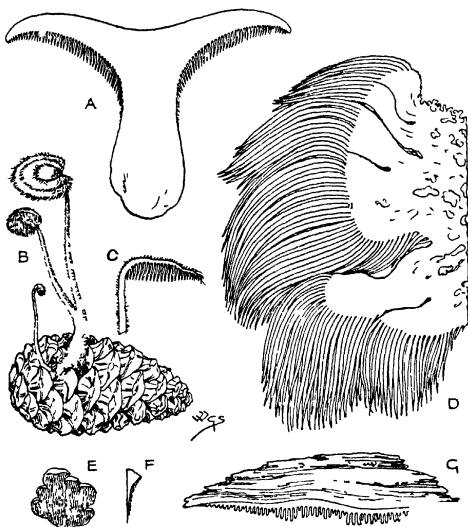


Fig 85.—A *Hydnum repandum* L. section one-half natural size B *H. auriscalpium* L. entire one half natural size C ditto section through pileus natural size D *H. erinaceus* Pers. section one half natural size E *H. ochraceum* Pers. entire one half natural size F, ditto section one half natural size G *H. squatinum* Fr. section one half natural size

MERISMATÆ Branched

- Very much branched 1708
 Simple, as seen without cutting, tuberculiform, immarginate, but slightly branched as seen in section 1709, 1710

APODÆ Stem absent

- Pileus* fleshy, soft 1711—1713
Cæspitose *Pilei* imbricate, commonly pliant, tough 1714
 Simple *Pileus* coriaceous or corky 1715

RESUPINATÆ *Pileus* none *Spines* vertical or oblique according to situation

Spines fuscous, ferruginous 1716—1728

Spines yellowish, greenish 1724—1736

Spines flesh-colour, lilac, rufescent 1737, 1738

Spines white, or light yellowish when old 1739—1745

MESOPODÆ

a *Carnosæ*

1687 **H imbricatum** L (from the imbricate scales of the pileus)
a b c

P at length depressed, rich, dark claret-brown, the innate sc exposing the paler flesh *St* even, whitish- or yellowish-claret-brown, base as *P* *Sp* decurrent, pale brownish-biscuit *Flesh* pale claret-brown in upper part of *P*, white elsewhere

Usually single Said to be edible Taste when cooked like tough liver, bitter, disagreeable Amongst firs rare Sept-Nov $9\frac{1}{2} \times 2\frac{1}{2} \times 1\frac{1}{2}$ in

1688 **H squamosum** Schæft (from the scaly pileus, *squama*, a scale) a

P at length depressed, breaking up into rough irregular sc, brownish- or vinous-salmon, sc brownish *St* equal or attenuate downwards, somewhat scaly, pale- or brownish-buff, sometimes darker below *Sp* decurrent, purplish-salmon *Flesh* pale purplish-salmon, almost white

Often connate Amongst mosses in pine woods Sept Oct $2\frac{3}{4} \times 1\frac{1}{2} \times \frac{5}{8}$ in

1689 **H scabrosum** Fr (from the rough, scaly pileus, *scabrosus*, rough) a b

P turbinate, then plane, usually uneven, squamulose, pale vinous-umber, mid darker marg white, sc umber *St* attenuate downwards, vinous, umber or cinereous, blackish at base *Sp* decurrent, buff-ivory or ferruginous with a grey fuscous effect *Flesh* salmon-ivory

Usually single Woods, pine Sept $4 \times 1\frac{1}{2} \times 1$ in

1690 **H molle** Fr (from the downy pileus, *molle*s, soft) a c White

P at length depressed, tomentose *St* almost equal *Sp* decurrent *Flesh* pale, brownish-white

Woods, pine $4\frac{1}{2} \times 1\frac{1}{2} \times 1$ in

1691 **H lævigatum** Swartz (from the smooth pileus *lævis*, even) a b

P at length depressed, pale yellowish-umber *St* equal, whitish above, colour as *P* below *Sp* decurrent, pale brown

Woods, pine Aug-Nov $4\frac{1}{2} \times 1\frac{1}{2} \times 1$ in Sometimes occurs three times the size of drawing Becoming more or less black in drying

1692. *H. fragile* Fr (from its fragility) *a b*

P at length depressed, at first pubescent, then smooth and subsquamulose, yellowish-brown to reddish-brown-buff, zoned darker *St* unequal, greyish, brownish-grey or as *P*, sometimes vinous-brown below *Sp* decurrent, ivory-grey or dull pale grey-ochre *Flesh* pale brown or pale vinous, darker at base of *St*

Odour of curry powder Woods, pine, amongst heath, rare Sept-Nov
 $4\frac{3}{8} \times 2\frac{3}{8} \times 1$ in

1693 *H. fusipes* Pers (from the fusiform stem, *fusus*, a spindle, *pes*, a foot) *a*

P fibrous, tough, lobed, becoming subdepressed, cold umber to deep claret-brown, marg paler, sometimes with a narrow white edge *St* colour as *P*, usually paler *Sp* decurrent, very short, salmon- or brown-whitish *Flesh* white or shaded, pale salmon or brownish

Woods, pine Sept $2\frac{1}{4} \times 1\frac{1}{4} \times 1\frac{1}{4}$ in

1694 *H. repandum* L (from the repand pileus in old examples) *a b c*

P somewhat smooth, rarely floccoso pruinose, pale buff *St* almost equal, paler than *P* *Sp* decurrent, colour as *St* *Flesh* white, becoming as *P*

Subgregarious Sometimes in rings Edible, but requires stewing slowly for four hours Woods, common Aug-Nov $4\frac{1}{2} \times 1\frac{3}{4} \times 1$ in Becoming wholly ochre or orange in drying

1695 *H. rufescens* Pers (from the rufescent colour) *a c*

P thin, somewhat lobed, pulvinate to plane, pubescent, buff, orange-brown or brown *St* almost equal, frequently excentric, pale yellowish, yellow- or bright-cinnamon *Sp* adnato-decurrent, pale ochre to bright cinnamon *Flesh* white to pale rufescent

Sometimes connate Woods, frequent Sept $3\frac{1}{2} \times 3\frac{1}{4} \times \frac{1}{2}$ in

1696 *H. acre* Quel (from the acrid taste) *a*

P turbinate, flattish, pale yellowish, olive shaded, mid darker *St* equal, colour as *P* or darker *Sp* decurrent $\frac{1}{16}$ in, colour as *P* *Flesh* pale yellowish, greyish or pale brownish

Poisonous Taste bitter acrid Woods, pine, chestnut, sandy places
 $5 \times 1\frac{1}{4} \times 1$ in

1697 *H. fuligineoalbum* Schmidt (from the smoky-whitish stem, *fuligo*, soot, *albus*, white) *a c*

P convex, becoming depressed, repand, squamulose, sc brownish on an umber-white ground *St* scaly, dull salmon *Sp* decurrent, pale vinous-brown *Flesh* white, clouded pale rosy-brown or pale sienna

Woods, pine, pastures near woods $4\frac{1}{2} \times 1\frac{3}{4} \times \frac{7}{8}$ in Becoming dull vinous-brown in drying

*b Lignosæ***1698 H compactum** Pers (from its compact substance) *a b c*

P irregular, plane, tuberculose, orange-sienna or umber, sometimes ivory, shaded grey *St* irregular, tuberculose, orange-sienna or umber *Sp* decurrent, salmon-brown *Flesh* zoned brown and bright blue, or ivory and pale blue, the blue gradually becoming indigo

Often confluent and misshapen Amongst firs, heather, etc Aug-Nov $3\frac{3}{4} \times 1\frac{1}{2} \times 1\frac{1}{2}$ in Becomes blackish in drying

1699 H aurantiacum L & S (from the colour, *aurum*, gold) *a b c*

P convex or turbinate, becoming flat, rugged, yellowish-orange or yellowish-sienna, buff when young *St* sienna-orange above, deep sienna below *Sp* decurrent, white to ivory-ochre, sometimes orange near *St* *Flesh* pale dull orange

Inodorous Woods, pine Sept-Nov $2\frac{3}{4} \times 1\frac{1}{2} \times \frac{3}{4}$ in Becoming vinous brown in drying

1700 H ferrugineum Fr (from the rust-of-iron colour, *ferrum*, iron) *a c*

P flat or slightly depressed, rugged, sienna-umber, at first downy, exuding blood-red drops *St* unequal, pale ochre, umber or slate *Sp* decurrent, reddish salmon *Flesh* pale yellow, vertically brown-streaked

Often confluent, woods involving fir leaves, grass, etc Frequently connate Woods, pine, under ling Aug-Oct $4\frac{1}{2} \times 1\frac{1}{2} \times 1$ in

1700a H cinereum Bull (from the grey pileus and spines, *cinis*, ashes)

P corky to woody, becoming infundibuliform, covered with small elevations villous, white to grey, varying vinous or umber *St* somewhat ventricose, vinous-ivory, somewhat brown below *Sp* decurrent, short, white to grey and pale olive-brown *Flesh* white, vinous-buff below

Often connate Woods Sept $2\frac{3}{4} \times 2 \times \frac{3}{4}$ in

1701 H scrobiculatum Fr (from the pitted pileus, *scrobus*, a trench) *a b c*

P rugged, tuberculose, downy, mid, tubercles and marg deep sienna on a salmon ground *St* rugged, unequal, smooth, often rooting, vinous-salmon above, vinous-blackish below, or umber *Sp* decurrent, colour as *P* or lighter *Flesh* vinous-salmon, zoned vinous-brown

Involving pine leaves, etc Often connate Woods, fir, amongst ling Aug-Nov $1\frac{1}{2} \times 2\frac{1}{2} \times \frac{3}{4}$ in

1702 H zonatum Batsch (from the frequently zoned pileus) *a b c*

P depressed, mid rugged-squarrose, marg radiato-rugose, 1-12 zoned, z sometimes nearly obsolete, ferruginous *St* unequal, rugged, floccose, colour as *P* *Sp* decurrent, small, slender, pallid to ferruginous *Flesh* rich vinous-brown

Commonly involving moss, leaves, etc, sometimes full of embedded fir leaves, fragrant Woods, fir, oak, rare Aug-Nov $2\frac{1}{2} \times 1\frac{3}{8} \times \frac{3}{8}$ in

1692. *H. fragile* Fr (from its fragility) *a b*

P at length depressed, at first pubescent, then smooth and subsquamulose, yellowish-brown to reddish-brown-buff, zoned darker *St* unequal, greyish, brownish-grey or as *P*, sometimes vinous-brown below *Sp* decurrent, ivory-grey or dull pale grey-ochre *Flesh* pale brown or pale vinous, darker at base of *St*

Odour of curry powder Woods, pine, amongst heath, rare Sept-Nov
 $4\frac{3}{8} \times 2\frac{3}{8} \times 1$ in

1693 *H. fusipes* Pers (from the fusiform stem, *fusus*, a spindle, *pes*, a foot) *a*

P fibrous, tough, lobed, becoming subdepressed, cold umber to deep claret-brown, marg paler, sometimes with a narrow white edge *St* colour as *P*, usually paler *Sp* decurrent, very short, salmon- or brown-whitish *Flesh* white or shaded, pale salmon or brownish

Woods, pine Sept $2\frac{1}{2} \times 1\frac{1}{2} \times 1\frac{1}{2}$ in

1694 *H. repandum* L (from the repand pileus in old examples) *a b c*

P somewhat smooth, rarely floccoso pruinose, pale buff *St* almost equal, paler than *P* *Sp* decurrent, colour as *St* *Flesh* white, becoming as *P*

Subgregarious Sometimes in rings Edible, but requires stewing slowly for four hours Woods, common Aug-Nov $4\frac{1}{2} \times 1\frac{3}{4} \times 1$ in Becoming wholly ochre or orange in drying

1695 *H. rufescens* Pers (from the rufescent colour) *a c*

P thin, somewhat lobed, pulvinate to plane, pubescent, buff, orange-brown or brown *St* almost equal, frequently excentric, pale yellowish, yellow- or bright-cinnamon *Sp* adnato-decurrent, pale ochre to bright cinnamon *Flesh* white to pale rufescent

Sometimes connate Woods, frequent Sept $3\frac{3}{8} \times 3\frac{1}{4} \times \frac{1}{2}$ in

1696 *H. acre* Quel (from the acrid taste) *a*

P turbinate, flattish, pale yellowish, olive shaded, mid darker *St* equal, colour as *P* or darker *Sp* decurrent $\frac{1}{16}$ in, colour as *P* *Flesh* pale yellowish, greyish or pale brownish

Poisonous Taste bitter acrid Woods, pine, chestnut, sandy places
 $5 \times 1\frac{1}{4} \times 1$ in

1697 *H. fuligineoalbum* Schmidt (from the smoky-whitish stem, *fuligo*, soot, *albus*, white) *a c*

P convex, becoming depressed, repand, squamulose, sc brownish on an umber-white ground *St* scaly, dull salmon *Sp* decurrent, pale vinous-brown *Flesh* white, clouded pale rosy-brown or pale sienna

Woods, pine, pastures near woods $4\frac{1}{2} \times 1\frac{3}{4} \times \frac{7}{8}$ in Becoming dull vinous-brown in drying

*b Lignosæ***1698 H compactum** Pers (from its compact substance) *a b c*

P irregular, plane, tuberculose, orange-sienna or umber, sometimes ivory, shaded grey *St* irregular, tuberculose, orange-sienna or umber *Sp* decurrent, salmon-brown *Flesh* zoned brown and bright blue, or ivory and pale blue, the blue gradually becoming indigo

Often confluent and misshapen Amongst firs, heather, etc Aug-Nov $3\frac{1}{2} \times 1\frac{1}{2} \times 1\frac{1}{2}$ in Becomes blackish in drying

1699 H aurantiacum L & S (from the colour, *aurum*, gold) *a b c*

P convex or turbinate, becoming flat, rugged, yellowish-orange or yellowish-sienna, buff when young *St* sienna-orange above, deep sienna below *Sp* decurrent, white to ivory-ochre, sometimes orange near *St* *Flesh* pale dull orange

Inodorous Woods, pine Sept-Nov $2\frac{3}{4} \times 1\frac{1}{4} \times \frac{3}{4}$ in Becoming vinous brown in drying

1700 H ferrugineum Fr (from the rust-of-iron colour, *ferrum*, iron) *a c*

P flat or slightly depressed, rugged, sienna-umber, at first downy, exuding blood-red drops *St* unequal, pale ochre, umber or slate *Sp* decurrent, reddish salmon *Flesh* pale yellow, vertically brown-streaked

Often confluent, woods, involving fir leaves, grass, etc Frequently connate Woods, pine, under ling Aug-Oct $4\frac{1}{2} \times 1\frac{1}{2} \times 1$ in

1700a H cinereum Bull (from the grey pileus and spines, *cinis*, ashes)

P corky to woody, becoming infundibuliform, covered with small elevations villous, white to grey, varying vinous or umber *St* somewhat ventricose, vinous-ivory, somewhat brown below *Sp* decurrent, short, white to grey and pale olive-brown *Flesh* white, vinous-buff below

Often connate Woods Sept $2\frac{3}{4} \times 2 \times \frac{3}{4}$ in

1701 H scrobiculatum Fr (from the pitted pileus, *scrobus*, a trench) *a b c*

P rugged, tuberculose, downy, mid, tubercles and marg deep sienna on a salmon ground *St* rugged, unequal, smooth, often rooting, vinous-salmon above, vinous-blackish below, or umber *Sp* decurrent, colour as *P* or lighter *Flesh* vinous-salmon, zoned vinous-brown

Involving pine leaves, etc Often connate Woods, fir, amongst ling Aug-Nov $1\frac{1}{4} \times 2\frac{1}{4} \times \frac{3}{4}$ in

1702 H zonatum Batsch (from the frequently zoned pileus) *a b c*

P depressed, mid rugged-squarrose, marg radiato-rugose, 1-12 zoned, z sometimes nearly obsolete, ferruginous *St* unequal, rugged, floccose, colour as *P* *Sp* decurrent, small, slender, pallid to ferruginous *Flesh* rich vinous-brown

Commonly involving moss, leaves, etc, sometimes full of embedded fir leaves, fragrant Woods, fir, oak, rare Aug-Nov $2\frac{1}{4} \times 1\frac{3}{8} \times \frac{3}{8}$ in

1702a H Queletii Fr ex Quél (after D^r Lucien Quelet) *a*

P fleshy, coriaceous, plane, then depressed, zoneless, or with one zone, somewhat rugoso radiate, vinous-sienna, darker at mid, marg white *St* colour as *P*, paler above *Flesh* pale salmon-umber

Often connate On the ground in woods Oct $2 \times 1 \times \frac{3}{8}$ in

1703 H nigrum Fr (from the blackish colour, *niger*, black) *a b c*

P turbinate, rugged-tubercular, tomentose, lavender-grey, purple or blackish blue, *z* 2-5, deep purple *St* unequal, lavender-umber, shaded umber, to black *Sp* decurrent lavender-whitish, greyish or purple *Flesh* slate or deep purple

Often connate Woods, pine Sept-Nov $2\frac{1}{2} \times 1\frac{1}{2} \times \frac{1}{4}$ in

1704 H graveolens Fr (from its strong odour, *gravis*, strong, *oleo*, to smell) *a b c*

P thin, zoneless, smooth, rugose, depressed, pale to dark umber or black-fuscous, marg paler or whitish *St* equal, smooth, colour as *P* *Sp* decurrent, grey *Flesh* umber

Usually caespitose and confluent, rarely solitary Odour heavy, spicy sweet, like curry powder Woods, fir, oak rare Sept-Nov $1\frac{1}{2} \times 2 \times \frac{1}{8}$ in Varied in shape and size, sometimes spatulate Examples gathered in 1855 retained their odour in 1901 Stem sometimes very short

1705 H melaleucum Fr (from the black pileus and white spines, Gr *melas*, black, *leukos*, white) *a c*

P thin, plane, depressed, slate blackish or slate-brownish or dark brown-grey *z* darker, marg whitish when young pale umber with white marg *St* smooth, ashy-grey to slate-blackish *Sp* adnato-decurrent, white or whitish *Flesh* umber-white to slate

Sometimes caespitose Odour none Amongst pines Sept $1\frac{1}{2} \times 1\frac{1}{2} \times \frac{3}{8}$ in

1706 H cyathiforme Schæff (from the pileus, sometimes cup-shaped, *cyathus*, a cup, *forma*, form) *a b c*

P thin, plano-infundibuliform, tomentose, somewhat rugged at mid, brown-whitish to dark claret-brown, marg sometimes white-tomentose *z* 3-11, darker, when dry very glossy *St* unequal, smooth, sometimes almost obsolete, colour as *P* or darker *Sp* adnato-decurrent, dull salmon or salmon-grey

Sometimes connate Woods, fir Aug-Nov $2\frac{1}{2} \times 1\frac{1}{2} \times \frac{1}{2}$ in With the exception of the spines, sometimes much like 1525

PLEUROPODA

1707 H auriscalpium L (from the shape of small examples, *auriscalpum*, an ear-pick) *a b c*

P thin, coriaceous, reniform, hispid-hairy, brownish-salmon or brown, sometimes blackish, *z* darker *St* rooting, hispid, often branched, colour as *P* *Sp* white, salmon or brown *Flesh* pale umber or salmon-white

Sometimes springing from thick rhizomorphoid growths with stems sometimes without pili Fir-cones, fir leaves May-Dec $\frac{1}{2} \times 2 \times \frac{1}{4}$ in

MERISMATÆ

- 1708 **H coralloides** Scop (from its appearance, like branched white coral Gr *korallion*, coral, *eidos*, appearance) *a b c*

Much and narrowly branched, wholly white, becoming faintly buff or yellowish *Sp* $\frac{1}{16}$ to $\frac{1}{8}$ in long

Trunks, beech, birch, ash, oak, etc, rare Oct $12 \times 7\frac{1}{2}$ in Sometimes dark brown when dry

- 1709 **H erinaceus** Bull (from a fancied resemblance, when young, to a hedgehog, *erinaceus*) *a b c*

Slightly and broadly branched, wholly white, becoming pale yellowish *Sp* $1\frac{1}{2}$ to $2\frac{1}{4}$ in long, pendulous in large tufts
Flesh branched, cancellate

Taste mild Trunks, oak, beech, hornbeam, alder, etc rare Sept-Nov
 13×13 in Sometimes dark brown when dry Sometimes very large and heavy, weighing 22 lbs or more

- 1710 **H caputmedusæ** Pers (from a fancied resemblance to Medusa's head *caput*, a head) *a b c*

Sp in connate, tuberculiform groups, $\frac{1}{2}$ to $1\frac{1}{2}$ in long, growing in various directions in matted locks as of hair, substipitate wholly white or ivory, becoming grey

Trunks rare Diam $6\frac{1}{2}$ in

- 1710a **H Schiedermayeri** Heuf (after K B Schiedermayer) *a*

Fleshy, immarginate ivory-white becoming buff when old *Sp* $\frac{2}{3}$ to $\frac{1}{2}$ in long *Flesh* somewhat cancellate pale sulphur, becoming buff below when old

Connate imbricate Growing from cracks in bark of old apple trunks In connate imbricate groups of various sizes each example $1\frac{1}{2} \times 1$ in Groups 6×3 or 4 in

APODÆ

- 1711 **H cirrhatum** Pers (from the pileus, clad with small curls, like little locks of hair *cirrus*, a curl) *a b c*

P pulvinate, expanded, dark biscuit-colour marg fimbriate
Sp $\frac{1}{4}$ to $\frac{1}{2}$ in long, paler than *P* *Flesh* paler than *P*

Imbricate or simple Trunks beech Aug Group 7 in Diam $5\frac{1}{2}$ in
Sometimes dark brown when dry

- 1712 **H diversidens** Fr (from the spines, differing from the scale-like growths on the pileus *diversus*, diverse, *dens*, a tooth) *a b c*
Wholly biscuit colour, pale to dark

P somewhat lobed thick, beset with small variously shaped sc

Substipitate, obscurely branched Irregularly imbricate Trunks, hornbeam, oak, beech, birch Oct Diam $5\frac{1}{2}$ in One cause of "white rot"

- 1713 **H pulcherrimum** B & Curt (from its appearance, *pulcherrimus*, very beautiful) *a c*

P pulvinate, fleshy-fibrous, spongy-soft, dimidiate, expanded,

stiffly-downy, white, shaded, pale tawny, marg thin, lobed
Sp variable in size, $\frac{1}{2}$ to $\frac{1}{8}$ in, tawny

Subimbricate Oct Diam $1\frac{3}{8}$ in

- 1714 H multiplex** Fr (from the many folds of the pileus, *multus*, many, *plucto*, to twist) *a c*

P thin, leathery, deeply folded, spathulate, velvety, rich brown
Sp $\frac{1}{4}$ in long, crowded, very slender, grey, shaded brownish
Flesh bright brown, paler than *P*

Imbricate Group $4\frac{1}{2}$ in in diam

- 1715 H ochraceum** Pers (from the ochreous colour) *a b c*

Sub thin *P* when present, thin, pale ochreous, zoned, usually resupinate or with marg slightly upturned and forming more or less perfect connate pilei *Sp* very small, somewhat blunt, ochreous flesh-colour, orange-buff, sometimes fawn, rarely dull crimson

Trunks, oak, branches, fir leaves, bramble, apple, moss, common Oct - April Diam 5 in Readily separating from matrix

RESUPINATÆ

- 1716 H squalinum** Fr (from a fancied resemblance in the spines to sharks' teeth *squalus*, a shark) *a c*

Sub adnate, coriaceous, pale yellowish-fawn *Sp* entire, stout, compressed, rounded at apex, $\frac{1}{16}$ in long, colour as *Sub*

Trunks, beech Diam $2\frac{3}{8}$ in

- 1717 H fuscoatrum** Fr (from the dusky-black clouding, *fuscus*, dusky *ater*, black) *a c*

Sub a thin film, glaucous, flocculoso-pruinose, salmon-umber, mid darker, or dark brown shading into sienna and brown-ochre at marg *Sp* short, conico-subulate, acute, colour as *Sub*

Rotten wood, birch, beech, alder Diam $2\frac{1}{2}$ in

- 1718 H membranaceum** Bull (from the membranous subiculum) *a b c*

Sub an effused waxy membranous film, pale vinous sienna, marg lighter *Sp*awl shaped, crowded, acute, short, darker than *Sub*

Fallen sticks, pear, frequent Jan Diam $2\frac{3}{8}$ in

- 1719 H molluseum** Fr (*mollis*, soft, in reference to the thin subiculum)

Sub membranous, dry, readily separable from the matrix, whitish
Sp short, slender, reddish

Wood Distinguished from 1718 by the dry white subiculum, separating from the matrix

- 1720 H Weinmannii** Fr (after J A Weinmann, mycologist) *a b c*

Sub effused, waxy-membranous, agglutinate, fawn-grey, pale slate, or umber and white *Sp* minute, acute, somewhat

distant, sometimes collected in small groups or fascicles, slate, somewhat umber, apex white

Fallen branches, ash, oak Oct-April Diam $4\frac{1}{2}$ in When dry cracking and becoming full grey or fawn to deep brown or almost black

- 1721 H erinale** Fr (from the slender hair-like spines, *crinis*, a hair) *a*

Sub effused, villosa-interwoven, thin, sienna ochre *Sp* $\frac{1}{4}$ in long, crowded, very slender, sienna-umber or rufous-brown

Dead wood, rare Diam $3\frac{3}{8}$ in The hair like spines resemble those of *Mucronella*

- 1722 H ferruginosum** Fr (from the rust-of-iron colour, *ferrum*, iron) *a c*

Sub effused, submucedinous, separable from matrix, tawny, ferruginous *Sp* crowded, conicoawl-shaped, acute, colour as *Sub*

Decayed wood, especially under bark, rarely on the ground July-Oct Diam 2 in Sometimes mere conical forms of other fungi, as *Isaria* amongst the Hyphomycetes, or 1780 are mistaken for this plant

- 1723 H variegolor** Fr (from the varying colours) *a b c*

Sub effused, adnate, forming a furfuraceous crust, white, becoming cream, sienna and sienna umber in drying, sometimes resembling white miniature clouds, marg finely white-fimbriate *Sp* crowded, conical, short, or minute with a ragged appearance, but here and there longer and more typically *Hydnum*-like, commonly adpressed, colour as *Sub*

Dead stump, oak rare Oct Diam $3\frac{3}{8}$ in

- 1724 H aureum** Fr (from the colour, *aurum*, gold) *a*

Sub somewhat cartilaginous, jagged-radiate marg irregular, narrow, byssoid *Sp* often developed in small patches, awl-shaped, colour as *Sub*

Dead branches Dec Diam $5\frac{1}{4}$ in Appearance meruloid Mycelium permeating wood and causing defined yellowish flesh coloured spots

- 1725 H denticulatum** Pers (from the slightly toothed spines *dens*, a tooth) *a*

Sub thin, somewhat fleshy, mealy, shining light-yellow-ochreous or olive-ochre, sometimes clouded pale brownish rose *Sp* crowded, equal, minutely 2-3 toothed at the whitish apex

Rotten wood June Diam $2\frac{5}{8}$ in

- 1726 H alutaceum** Fr (from the colour, like tanned leather, *aluta*) *a b c*

Sub crustose, adnate, very thin, pallid ochreous, pale brownish-yellow or biscuit *Sp* acute, very minute and short, here and there a little longer and typically *Hydnum*-like, colour as *Sub*, marg barren

Dead wood, pine, rare Nov Diam $4\frac{1}{2}$ in Re-embling 1770

1727, H sulphureum Schwein (from the sulphur-colour) *a*

Sub effused, adnate, membranous, colour paler at margin and gradually fading into the colours of the bark, margin barren, byssoid *Sp* minute, few, subulate

Dead wood, birch *Drum* 4 in The barren spineless form can hardly be distinguished from 1890

1728 H sordidum Weinm (from the dingy colour *sordidus*, dirty) *a*

Sub effused, thin, mucid, easily separating, dingy yellow, margin gyroso porous, sulphur-yellow *Sp* very crowded, somewhat gelatinous, compressed, incised, subacute, colour as *Sub*

Dead wood *Nov* *Diam* 3½ in Becoming dull reddish in drying

1729 H viride Fr (from the colour, *viridis*, green) *a*

Sub effused, thin, softly velvety, somewhat pale leaf-green, becoming yellowish margin in places slightly upturned *Sp* stout, short, somewhat thick, irregular, somewhat incised, colour as *Sub*

Rotten wood, alder *Drum* 3½ in Sometimes effused for 8 to 10 in

1730 H limonicolor B & Br (from the lemon colour *Citrus Limonum*, the lemon) *a*

Sub adnate, scanty *Sp* crowded, short, acute *Myc* scanty or obsolete, when present shining-white

On stone buried amongst pine leaves *Oct* *Drum* 3 in Distinguished from 1736 by the scanty subiculum and the absence of a persistent barren white margin

1731 H pinastri Fr (from the habitat, pines, *pinus*) *a c*

Sub effused, membranous, fleecy or minutely hispid, separable, light yellow, ivory or biscuit, margin lighter villous beneath *Sp* equal, subulate, acute, in groups, oblique in different directions, pale brown

Mossy bark, wood, pine *Drum* 4½ in

1732 H spathulatum Fr (from the spatulate spines) *a*

Sub effused, membranous, separable, yellowish margin fimbriate, villous beneath *Sp* very small, oblique, obtuse, orange

Dead wood, *Robinia* rare *Jan-Dec* *Drum* 3½ in Often in cracks in bark

1733 H multiforme B & Br (from its many forms, *multus*, many, *forma*, form)

Sub inseparable, at first wholly barren, then here and there fertile, ochreous-white, texture floccoso-mealy margin coarsely fibrillose *Sp* very acute, crowded, becoming pallid and fimbriate

Dead wood Very variable, sometimes almost tow like with margin inflexed Perhaps a *Corticium*, as the spines when present are barren

1734 H anomalum B & Br (from the anomalous spines) *a b*

Sub thin, gelatinous, pallid, light-yellow *Sp* minute, at first in the form of granules, then stipitate and obtusely divided, few, but here and there more, colour as *Sub*

Rotten wood, ash *Mar* *Drum* 2½ in With immersed ovate or circular

vesicles Brown when dry Near *Mucronella* and perhaps not a true *Hydnum*

- 1735 H melleum** B & Br (from the honey-colour, *mel*, honey) *a c*
Sub thin, effused, pulverulent, marg delicately flaxy *Sp* acute, minute, sometimes divided at apex with a tendency to grow in groups, partially pulverulent

A doubtful *Hydnum* On rails on the ground Diam $4\frac{1}{2}$ in

- 1736 H sepultum** B & Br (from its habitat, *sepultus*, buried) *a*
Sub golden, marg white *Sp* acute to obtuse, minute to medium size

On wood, bark and stones buried amongst pine leaves Sept $\frac{1}{2}$ to $\frac{5}{8}$ in diam
 Forming little scattered patches Pale ochraceous when dry

- 1737 H udum** Fr (from its moist substance, *udus*, moist) *a b c*
Sub effused, thin, subgelatinous, agglutinate to matrix, flesh-colour to watery yellowish, sometimes bright sulphur
Sp acute, 2-3 forked, small, but varying in length, crowded, arranged in groups, very small near the barren marg, colour as *Sub*

Dead branches, willow, oak, alder, frequent Sept-April Diam $5\frac{1}{2}$ in
 Forming large patches

- 1738 H bicolor** A & S (from the white subiculum and brown spines *bis*, two, *color*, colour) *a c*

Sub widely effused, tomentose, adpressed, thin, white, marg broadly barren *Sp* minute, white-villous, naked at acute apex, paleumber to rufous-brown

Bramble, fir March Diam 2 in

- 1738a H Holli** Fr (after F Holl) *a*

Sub adnate, effused, waxy membranous, whitish-brown marg finely powdery *Sp* very minute, blunt, deformed

On naked wood Oct $4 \times 2\frac{1}{2}$ in

- 1739 H nodulosum** Fr (from the nodulose subiculum) *a*

Sub broadly effused, crustaceous, nodules (less in size than a pea) sterile above, furnished with spines below, whitish to pallid yellowish *Sp* free and pendulous below nodules, adnate and elongate on the interstices, colour as *Sub*

Trunks, stumps, fir Oct Diam 4 in

- 1740 H Stevensonii** B & Br (after the Rev Dr John Stevenson) *a c*

Sub effused, merely beneath, here and there flaxy, white
Sp minute, crowded, cylindrical, obtuse, pulverulent at apex, colour as *Sub*

Dead wood, sometimes spreading and encrusting mosses, leaves, etc March
 Diam $1\frac{1}{2}$ in Having the appearance of a resupinate *Polyporus*

- 1741 H plumosum** Duby (from the plumose apex of the spines) *a c*

Sub very delicate, downy, white *Sp* very small, divided, colour as *Sub*

Dead wood, pine, rare Diam $1\frac{3}{4}$ in Cracking when dry and becoming ivory brown

- 1742 **H niveum** Pers (from the snow-white colour, *nix*, *nivus*, snow) *a b c*

Sub effused, thin, membranous, lustrous, adnate, marg fibrilloso-flaxy *Sp* at first granulose, then acutely pointed, smooth

Dead wood, leaves pine, birch, beech, uncommon Nov - April Diam $2\frac{1}{2}$ in Persistent Ochreous or sulphur white when dry

- 1743 **H farinaceum** Pers (from the mealy subiculum, *farina*, meal) *a b c*

Sub effused, indeterminate, adnate, white, marg subflocculose

Sp thin, subdistant acute, interstices finely farinose, colour as *Sub*

Dead wood, fir, oak Sept - May Diam 5 in Varying pale brownish, pale yellowish, or sulphur or ochre white

- 1744 **H argutum** Fr (from the acute spines *argutus*, acute) *a b c*

Sub effused in scattered patches, tomentoso-interwoven, spongy, adnate, white *Sp* acute, awl-shaped unequal, slightly serrate, colour as *Sub*

Wood and bark, alder, willow Sept Diam $2\frac{1}{2}$ in The hymenium has a finely mossy appearance from the unequal divergent spines Becoming colour of coffee with mill when dry

- 1745 **H stipatum** Fr (from the crowded spines *stipatus*, crowded) *a c*

Sub widely effused flocculoso-farinaceous, forming an adnate crust, white to brown-white or light yellowish *Sp* at first granulose then forming obtuse teeth, colour as *Sub*

Rotten wood Dec - Jan Diam $3\frac{1}{2}$ in Has the appearance of a resupinate *Polyporus*

LXXI TREMELLODON Fr

(From its resemblance to a *Tremella* Gr *odeus* a tooth)

Gelatinous, pileate, hymenium inferior covered with acute awl-shaped spines *Basidia* ovate, somewhat obliquely 2-4 divided

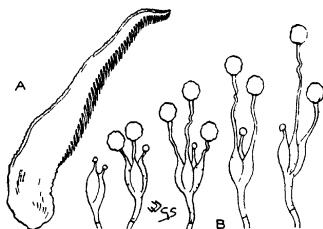


Fig 86 — *Tremellodon gelatinosum* Fr
A section one half natural size B basidia sterigmata and spores X 500

almost to the base, sometimes undivided for twice the length of the spore, sterigmata 1-5 lengths of spore (Fig 86)

Mr Fred Currey (*Journ Linn Soc* vol v p 181, 1861) was the first to call attention to the cloven basidia in this species, and to point out the resemblance in the fruit to some of the *Tremellinaceæ*. Mr George Masee (*British Fungus Flora*, vol 1 p 65) has placed *Tremellodon* at the end of the *Tremellinaceæ*, but the nature of the basidium and sterigmata is an insufficient reason for the removal, and if adopted many other removals would have to be made.

1746 T gelatinosum Fr (from the gelatinous substance) *a b c*

Wholly translucent, grey-white

P fan-shaped, fleshy, dimidiate, substipitate, white-frosted with shining particles *St* when present, white-frosted above

Taste pleasant Rotten pine, sawdust, rare Sept-Nov $3\frac{1}{2} \times 3\frac{1}{2}$ in

LXXII SISTOTREMA Pers

(From the irregular arrangement of the spines and their interstices, as if displaced, Gr *sistos*, shaken, *trema*, a pore)

Pileus fleshy, irregular or dimidiate *Hymenium* inferior *Teeth* resembling broken, jagged gills, not radiate, readily separating from

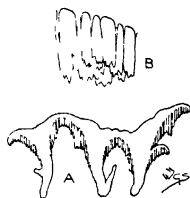


Fig 87 —A, section of *Sistotrema confluens* Pers, one half natural size B teeth of ditto $\times 3$

the hymenophore *Stem* central, excentric, flattened or almost obsolete *Basidia* 4-spored (Fig 87)

Closely allied to *Irpex*, but the latter is not fleshy and is usually sessile or resupinate and seldom terrestrial

1747 S confluens Pers (from the confluent habit) *a b c* Wholly white or whitish, becoming pale yellowish or brownish

P horizontal, subdepressed, villous *St* attenuate downwards

Sp decurrent

Gregarious On the ground, investing sticks, leaves, moss, grass, etc, under pines, uncommon Sept-Nov Group $2\frac{3}{8} \times 1\frac{1}{8}$ in

LXXIII IRPEX Fr

(From a fancied resemblance in the fruiting surface to the teeth of a harrow, *irpex*)

Hymenium inferior, toothed, teeth firm, somewhat coriaceous, acute—spathulate in 1753—concrete with the pileus or subiculum,

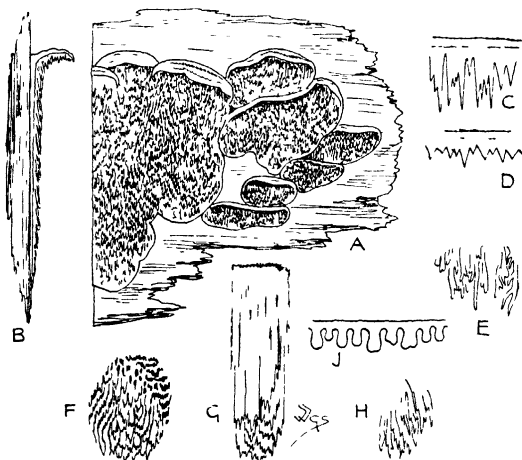


Fig 88 —A *Irpex fusco-olaceus* Fr B section of same two thirds natural size C D teeth of ditto $\times 3$ E *I. pendulus* Fr teeth enlarged F *I. obliquus* Fr ditto G ditto $\times 6$ H, *I. deformis* Fr teeth enlarged J *I. spathulatus* Fr teeth $\times 3$

arranged in irregular rows, like broken gills or broken honeycomb, connected at the base by veins or folds *Basidia* 4-spored (Fig 88)

Generally growing on wood, somewhat sessile or resupinate, approaching *Lenzitis* and *Dædalea*

Species 1748—1756

Pendulous, with the pileus extended behind 1748

Effuso-reflexed, marginate 1749—1751

Resupinate 1752—1756

1748 *I. pendulus* Fr (from the pendulous habit) a c

P membranous, slightly rugose or plicate, adpressedly squamuloso-pilose, light yellow to white-brown *Ti* in rows, large, incised, white

Sticks, pine, larch, spreading on to moss, rare $1\frac{1}{2}$ in, group $2\frac{1}{2}$ in Must not be confounded with 1757

1749 I fuscoviolaceus Fr (from the brown-violet colour of the teeth, *fuscus*, brown) *a b c*

P coriaceous, silky, zoned, brown-white to ochre-white, zoned brownish *Te* in rows in the form of much incised plates, of the purple-slate-whitish tint seen in the gills of some *Pratella*

Single to imbricate Pine, beech, rare $2\frac{1}{2}$ in, group $4\frac{1}{2}$ in Sometimes there is a considerable development of pileus

1750 I lacteus Fr (from the milk-white colour, *lac*, milk) *a b c*
White

P coriaceous, villous, concentrically sulcate *Te* crowded, gyrose in rows, acute, somewhat incised Irregularly porous at marg, becoming ragged at middle and base

Sometimes subimbricate Mountain ash, birch, fir, beech Nov Group $3\frac{1}{2}$ in

1751 I hypogæus Fuck (from its sometimes growing in and under earth Gr *hupo*, under, *gæ*, the earth) *a b c*

Myc dispersed, white to yellowish *Sub* marg determinate, compactly byssoid, white, then pallid brown-ochreous to dark brown, hymenium often barren or exhibiting barren patches *Te* irregular, somewhat labyrinthiform, lax, variable in size, straight, incised 2-6 mm long, base usually compressed, colour as *P*

Woods, pine, investing pine leaves, twigs, grass, earth, pebbles, rare Oct Group $4\frac{1}{2}$ in

1752 I Johnstonii Berk (after Dr George Johnstone) *a*

Effused, coriaco-membranous, separable from matrix, marg naked, reflexed all round, white *Te* compressed, unequal, arranged in rows, resembling the spines of *Hydnium*, but seated upon fine folds

Dead beech May be a form of 1750 $1\frac{1}{2}$ in, group $3\frac{1}{2}$ in

1752a I candidus Weinm (from the shining white colour, *candidus*, white) *a* Snow white

Broadly effused, thin, separable, arachnoid, flaxy at the marg *Te* subulate, or compressed, thin, toothed

Dead wood, pine Feb

1753 I spathulatus Fr (from the shape of the teeth, *spatha*, a spatula) *a b c*

Effused, membranous, flaxy, then smooth, white to biscuit *Te* entire, somewhat large, reticulato-connected with obsolete veins Marg sometimes obsolete, at other times broadly barren, with other barren places on hymenium Never porous

Larch Nov $4\frac{3}{4}$ in

1754 I obliquus Fr (from the oblique teeth) *a b c*

Effused, forming an adnate crust, white, clouded and shaded pale sienna, marg broadly barren, circ flaxy *Te* extended from

a base resembling small honeycomb, compressed, unequal, incised. Often with large pores near the marg

Stumps, dead branches, fir, larch, beech, birch, palms in nurseries Oct - May $4\frac{3}{4}$ in

1755 I deformis Fr (from the misshapen teeth, *deformis*, misshapen) *a c*

Effused, crustaceous, thin, white, circ pubescent, somewhat flaxy *Ti* awl-shaped, growing from a minutely porous base, thin, somewhat incised, unevenly and partially spread over the subiculum, matrix seen between the groups of teeth

Wood $2\frac{1}{2}$ in Allied to the *Polyporaceæ*

1756 I carneus Fr (from its flesh-colour, *caro*, flesh) *a b c*

Effuso-gelatinous, membranous, adnate, collapsing, reddish, marg barren *Ti* awl-shaped, entire, united at the base

Wood and bark, beech Autumn $2\frac{1}{2}$ in Placed in *Radulum* by Fuckel
Must not be confounded with 1720

LXXIV RADULUM Fr

(From the root-like appearance of the processes of the hymenium, *radia*, a root)

Hymenium resupinate, tubercular *Tubercles* distinct at the base, coarse, irregular in shape, commonly elongate, obtuse, mostly

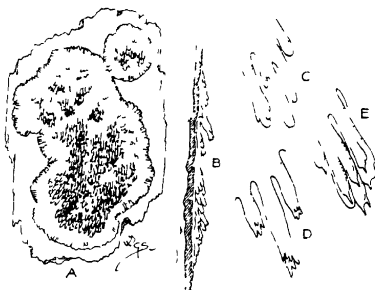


Fig 189 —A, *Radulum quercinum* Fr one half natural size B, ditto, section natural size C, tubercles of *P. orbiculari* Fr D, ditto of *R. quercinum* Fr E, ditto of *R. fagineum* Fr enlarged

waxy, scattered or fasciculate *Basidia* 4-spored Growing on wood and on and under bark (Fig 89) Species 1757—1764

1757 R pendulum Fr (from the pendulous habit) *a c*

Longitudinally effused, thick, softly coriaceous, whitish or ivory, upper marg shortly reflexed and rugose, lower marg barren
Tub elongate, somewhat lax, irregular

Alder, birch, pine 5 in Must not be confounded with 1748

1758 R orbiculare Fr (from its frequent orbicular shape) *a b c*

Orbicular, confluent, circ flaxy, becoming waxy-fleshy, white to ochre-ivory, mid faintly vinous, marg white *Tub* short to long and broad to narrow, mere granules near the barren marg

Birch, oak, larch, cherry, frequent Oct-Mar $2\frac{1}{2}$ in, group $4\frac{3}{8}$ in
Ends of tubercles usually crested

1759 R quereinum Fr (from its habitat, oak, *quercus*) *a b c*

Roundish, broadly confluent, innate, crustaceous, white to ochre-white *Tub* round, stout, obtuse, scattered or fasciculate, irregular in shape, floccoso-villous at apex, marg barren, edge pure white

Oak, sometimes on old squared oak timber Nov-Mar $3\frac{1}{2}$ in Sometimes confounded with **1716**, **1723** and species of *Dufaurea*

1760 R tomentosum Fr (from its downy appearance, especially at the margin, *tomentum*, down) *a b c*

Effused, innate, somewhat thick, opaque or translucent white, circ swollen or erect, tomentose *Tub* short, crowded, angular, obtuse, smooth, confluent, resembling white tomentum, smaller at marg

Willow, mountain ash, pine, sawdust Dec $5\frac{1}{2}$ in

1761 R deglubens B & Br (from its habit of peeling from the matrix *deglubo* to peel off) *a*

Orbicular, ferruginous somewhat diaphanous *Tub* erect, somewhat cylindrical, irregular, scattered, interstices even, pulverulent with white spores

Naked wood, bark, ash Jan $\frac{1}{2}$ in, group $5\frac{1}{4}$ in Growing in troops of small patches

1762 R corallinum B & Br (from its coral-like appearance) *a*

Somewhat effused, very thin, pelliculose, shining white *Tub* fasciculate, fascicles $\frac{1}{4}$ in or more across, surrounded by barren sub, divided obtuse coralloid, white

On partially lichen covered branches, oak Sept Fascicles 1 in, group 6 in

1763 R epileucum B & Br (from the hymenium growing upon a white subiculum *ἐπι*, upon, *λευκος*, white) *a b*

Effused *Hym* waxy, edge slightly upturned, pale, honey-colour *Sub* forming a powdery white marg *Tub* scattered, distant, cylindrical, short, under a lens fimbriate at apex, deciduous exposing the sub

Decorticated wood Aug $8\frac{1}{2}$ in

1764 R fagineum Fr (from the habitat, beech, *fagus*) *a b*

Effused, somewhat fleshy, white or pale yellowish-brown, marg radiate with ivory-white mix *Tub* elongate, round, varied, entire, sometimes crested, white to sienna-white

Chiefly on bark, rarely underneath, sometimes on birch Nov-Mar $5\frac{3}{8}$ in

[*Radulum aterimum* Fr is not a Basidiomycete but apparently one of the *Dematiaceæ* Under the microscope the appearance is that of conceptacles of *Rhizotonia crocorum*, but it bears 1-4 septate brown spores after the manner of *Cladosporium*, the fruiting branches are compacted together and take the form of short, obtuse teeth, as in the compacted form of

Penicillium named *Coremium*. It grows on naked birch wood or bark. Sowerby named his example *Hydnum erectum*, this grew upon a *Polyporus*. There is no drawing by Sowerby in the British Museum collection. It has also been named *Spharonea hydnoideum* Fr and *Hydnum aturimum* Fr.]

LXXV PHLEBIA Fr

(From the veined appearance of the hymenium, Gr *phleps*, a vein)

Resupinato-effused, amphigenous, waxy-soft or subgelatinous, from the first covered with crowded interrupted persistent veins which

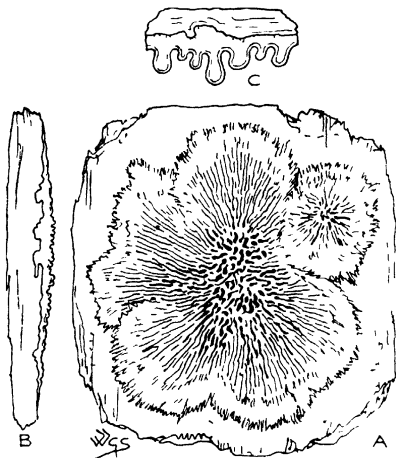


Fig 90 —A *Phlebia merismoides* Fr. B section of ditto two thirds natural size C vein enlarged

are entire, not jagged, at the edge, rarely anastomosing and forming pores. Becoming cartilaginous or horny when dry. *Basidia* tetrasporous (Fig 90)

Dead wood, stumps and branches

Species 1765—1769

1765 P merismoides Fr (from the resemblance of the wrinkled hymenium to that of the non-British section *Merismata* of *Stereum*) a b c

Whitish-orange or whitish-vermilion, mid livid, pale purplish, marg strigose, vermilion-white. *Ve* simple or slightly branched, straight, crowded, never reticulate or porous

Stumps, branches, naked wood, bark, leaves, moss, grass, oak, beech, holly, plum, cherry Aug-Jan 3½ in

1766 P radiata Fr (from the radiate veins) *a b c*

Orbicular, vermilion-orange or vermilion, mid darker, marg vivid orange-whitish *Ve* straight

Dead wood, birch, mountain ash, rare $2\frac{1}{2}$ in, group $5\frac{1}{2}$ in When in perfect condition forming somewhat large, conjoined, more or less hexagonal growths as in the carapace of a tortoise Thinner and brighter in colour than the other British species

1767 P contorta Fr (from the intricate veins, *contorqueo*, to twist) *a b c*

Yellowish, sienna or brownish or dull red flesh-colour or red-vermilion *Ve* conglomerate, branched, flexuous, much smaller than 1765-6, or as in *Dadalea* on a reduced scale

Decayed wood, furze, rare $\frac{1}{2}$ in, mass $2\frac{1}{8}$ in Forming more or less conjoined circular patches

1768 P vaga Fr (from the wandering appearance of the veins, *vagus*, wandering) *a b c*

Adnate, waxy, dull yellowish, central parts sometimes purplish or grey marg flavy-fibrillose and powdery *Ve* forming intricate wrinkles which often terminate in a granulose papilla

Dead wood, common Jan $6\frac{1}{2}$ in

1769 P lirellosa B & Br (from the veins, like small furrows, *lira*, a ridge or furrow) *a b*

Hym veined, interstices resembling small, round or elongate pores, umber-grey to white

Dead branches, poplar $3\frac{3}{4}$ in Purple blackish in drying The interstices resemble the pores of *Trametes* Sometimes confused with *Dadalea*

LXXVI **GRANDINIA** Fr

(From the granular appearance of the hymenium *grando*, hail)

Crustaceous, effused, thin, soft *Hymenium* resupinate, amphigenous, waxy, not dry as in *Odontia* *Granules* small, persistent,

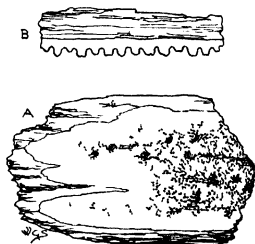


Fig 91 —A, *Grandinia crustosa* Fr, natural size
B section of ditto $\times 10$.

entire, smooth, crowded, apices not pointed as in *Hydnum*, usually indented or excavated as in *Porothelium* Basidia 4-spored (Fig 91)

The hymenial surface is often spuriously papillose from *Sphæria* on the bark beneath Species 1770—1774

1770 G granulosa Fr (from the minutely granular hymenium) *a b c*

Agglutinate, tan to sienna-ivory, marg determinate, ivory *Gr* small, crowded in groups, smaller at marg, hemispherical to somewhat elongate

Dead branches pine, *Mj* 11 *a Gale* Oct-May 5 in Cracking when dry

1771 G mucida Fr (from its waxy mucid substance) *a*

Subinnate, somewhat gelatinous, biscuit, marg determinate, subradial, minutely villous, ivory white *Gr* large, unequal, soft, scattered or in groups

Rotting wood, pine, birch rare May-Nov 4½ in Cracking when dry

1772. G ocellata Fr (from the minute eyelet, sometimes seen at the apex of the granules *ocellus*, a little eye) *a b*

Waxy, livid, rufous flesh-colour or warm brownish salmon, marg indeterminate, sterile, yellowish *Gr* crowded, subconical, obtuse somewhat scattered or in groups

Dead trunks Aug-Mar 6½ in Cracking when dry

1773 G papillosa Fr (from the minute teat like granules *papilla*, a teat) *a c*

Membranous, somewhat round, separating, white, becoming slightly sienna-ivory, marg furfuraceous *Gr* minute, crowded, equal, roundish

Sticks, pine, juniper bird cherry 3 in Cracking when dry

1774 G crustosa Fr (from its crust like appearance) *a b c*

Adnate irregularly effused, floccoso mealy, white to ivory, becoming pale brownish-yellow, marg indeterminate *Gr* crowded, obtuse, roundish, minute, regularly distributed, but with barren lacunæ

Branches, willow, pine, 1803 6½ in Not cracking when dry

LXXXII ODONTIA Pers

(From the minute teeth which invest the hymenium

Gr odous, odontes, a tooth)

Resupinate, effused, arid, not waxy as in *Grandima* Hymenium spreading from and between interwoven branched fibres, covered with minute teeth or warts which are crested or penicillate at the apex (Fig 92)

1775 tends towards *Hydnum*

Species 1775—1777

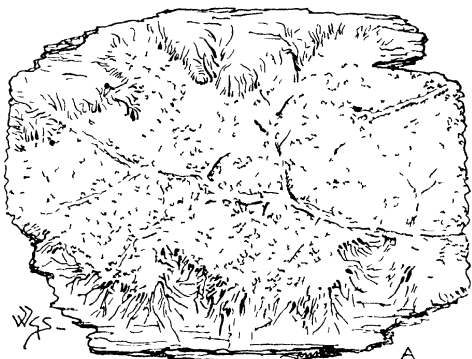
- 1775 *O barba-Jovis* Fr (from the minute orange fringe at the apex of each tooth, a fanciful comparison with the beard of Jupiter, *barba Jovis*) *a b c*

Flavy membranous, whitish to yellowish-orange, faintly shaded brownish marg determinate, broadly barren, white *Te* papillose, then conical, white with an orange fimbriate crest

Decayed wood, oak, birch 6½ in The hymenium usually exhibits barren patches



B



A

Fig 92 —A *Odontia fimbriata* Lets natural size B, section of ditto enlarged

- 1776 *O fimbriata* Pers (from the fibrillose or fringed margin, *fimbriae*, a fringe) *a b c*

Membranous, separating, traversed by prominent root-like branching threads continuous with the fringed marg, pallid or yellowish, suffused with dull salmon or pale fawn

Dead wood, willow, plane, dog wood, bark, moss Aug-April 7½ in Extensive barren patches sometimes occur on the hymenium Fawn-colour when dry, sometimes becoming deep rich brown

- 1777 *O cristulata* Fr (from the minutely crested teeth) *a b c*

Crustaceo-adnate, thin, not ribbed, pale warm brown or brownish-white, marg broadly barren, here and there finely downy

Rotten branches, larch Feb 5½ in Cracking all over when dry as in *Corticium*

- 1777a **¶** *Pruni* Lasch (from its host plant, sloe, *Prunus spinosa*) *a*
 'Crustaceo-adnate, effused, thin, white, becoming pallid, marg
 byssoid, warts minute, rounded

LXXVIII KNEIFFIA Fr

(After Friederich Gotthard Kneiff, mycologist of Baden)

Resupinate, effused, thin *Hymenium* strigose and roughened with rigid, scattered or fasciculate bristles which are barren out-growths from the fertile hymenial surface. Laxly fleshy, soft, collapsing and becoming flocculose when dry. *Basidia* monosporous (Fig 93)

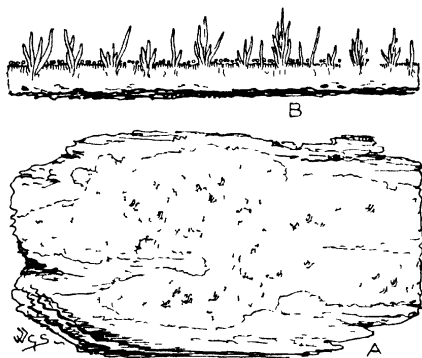


Fig 93 —A, *Kneiffia setigera* Fr natural size B section enlarged

The most perfect condition, where the growth is hemispherical and three inches in diameter, has not been observed in Britain

¶ Must not be confounded with *Pemophora*, where the basidia are 4-spored and the cystidia, which are bristle-like, are covered with minute particles of oxalate of lime

Species 1778, 1779

- 1778 **K setigera** Fr (from the minute hairs or bristles borne on the hymenium, *seta*, a bristle, *gero*, to carry) *a b c*

Sub white, becoming ochreous-ivory, sometimes pale grey, marg sometimes pulverulent. *Br* minute, single or several connate, more or less scattered, hyaline, the basidia occur between the barren bristles

Dead wood, blackberry, pine, juniper, magnolia, grass Jan -Dec 4½ in
 Sometimes the spuriously tuberculose hymenium resembles that of 1770 or 1839

1779 K subgelatinosa B & Br (from the subgelatinous substance)
a b

Hyaline yellowish, ivory or pale buff, surface very finely granuloso-crested

Stumps and cut surfaces of fir 4 in. Sometimes accompanied by a green alga which penetrates the tissue of the fungus. Cracking when dry as in *Corticium*

LXXIX MUCRONELLA Fr

(From the sharp-pointed spines, diminutive of *muco*, a sharp point)

Subiculum an extremely thin film, which soon becomes obsolete, spines subulate, simple, acute, glabrous, scattered or fasciculate, and more or less connate at the base. *Basidia* 1-4-sporous (Fig 94.)

Mucronella was at first placed under *Isaria* (*I calva*) by Fries, but its fruit shows it to be a true Basidiomycete, and its fugitive

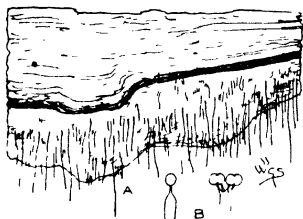


Fig 94 — A *Mucronella calva* Fr (one half natural size)
B basidia and spores X 100

subiculum to be one of the *Hydnaceæ*. Fries seems not to have observed the feeble subiculum, sometimes distinct in *M fascicularis*

1780 M calva Fr (from the habit, a fanciful comparison with an almost bald head, bearing a few scattered short hairs, *calva*, the bald sculp) a

Sub obsolete or nearly so. *Sp* slender, smooth, even, sharp-pointed, covered except at the barren tips with 1-4-sporous basidia, whitish, then grey. The growth of the spines is in a downward direction, dry examples revive with moisture

Scattered or gregarious. Kotten wood, pine. Spines vary in size from a minute granule to 1 in. long

FAM IV THELEPHORACEÆ

Erect and stipitate, cup-shaped, effused, with the upper portion free and reflexed or resupinate. Hymenium inferior or amphigenous, coriaceous, waxy or gelatinous, even to rugulose, ribbed or papillose, the surface glabrous, finely pulverulent or minutely velvety, with projecting setæ. Basidia clavate, 1-4-spored, normally tetrasporous. Spores usually aseptate, 3-septate in the non-British *Heterobasidium chlorascans*. The papillæ are for the most part accidental, generally arising in the resupinate species from *Sphæria*, growing on the bark beneath and not existing when the fungus grows on a surface free from *Sphæria*. True papillæ, however, sometimes occur on the pileate, terrestrial species. Some species are occasionally phosphorescent, as 1861. In the gelatinous species the aseptate and tetrasporous basidia distinguish them from certain members of *Trimellinaceæ*, where the basidia are longitudinally and cruciately septate, or if the spores are aseptate the basidia are deeply bifurcate and bisporous. *Hyponyces rosellus* often stains the hymenium of *Thelphora*, *Corticium*, and other genera of *Thelphoraceæ* a bright purple-rose colour.

Massee has published a *Monograph of the Thelphoraceæ* in *Journ Linn Soc (Bot)* xxi (1889) and xxvii (1890). The sequence of the genera adopted here is that of P. A. Saccardo, *Sylloge Fungorum*, vol. vi, which is a slight modification of the order as given in Fries's *Hymenomyces Europæi*. Species 1781—1925

KEY TO THE GENERA

Large

Erect, funnel shaped, hymenium glabrous	80	KATHEKELIUS
Erect to resupinate, hymenium rugulose	81	THELEPHORA
Effuso reflexed, hymenium even, glabrous	83	STIREUM
Horizontal, attached by a small base behind	82	CLADOPORIS
Resupinate		
Hymenium smooth setulose	84	HYMENOCHITE
Hymenium rough setulose	86	PENIOHORA
Hymenium glabrous	85	CORTICIUM
Hymenium pulverulent	87	CONIOHORA
Small, cup shaped, usually single	89	CYPHEZIA
Minute, cup shaped, crowded	90	SOLINIA
Parasitic on living leaves and stems	88	IXOBASIDIUM

LXXX CRATERELLUS Pers

(From the shape, like a small crater, cup or bowl)

Hymenium waxy-membranous, distinct, but adnate to the hymenophore, inferior, continuous, smooth, even or rugose *Pileus*

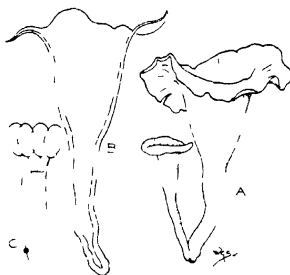


Fig. 95.—A B *Craterellus cornucopioides* Pers. entire and in section one third natural size C basidium and spores $\times 500$

entire, stipitate, fleshy or membranous *Spores* white (Fig 95)

Usually large, erect and funnel-shaped Growing on the ground
Autumnal Allied to *Cantharellus* Species 1781—1785

Tubiform, pervious to the base of the stem 1781, 1782

Infundibuliform, stem stuffed 1783, 1784

Irregularly shaped, pileus and stem fleshy 1785

1781 *C. lutescens* Fr (from the yellowish colour, *lutescens*, yellowish) a

P thin to submembranous, undulate, flocculose, warm vinous, orange brown or dull ochre *St* smooth, ochre or salmon, or as *P* *Hym* rugoso-veined, ochre-cream, golden-sulphur or salmon, sometimes greyish *Flush* white-sulphur-ochre

Sometimes caespitose Odour strong as of spirit Moist woods, rare Sept - Oct $2\frac{1}{2} \times 4 \times \frac{3}{8}$ in Sometimes turning black in decay Easily confounded with 1379

1782 *C. cornucopioides* Pers (from the shape, like a cornucopia) a b c

P thin to submembranous, undulate, squamulose, umber-sepia *St* pale grey-slate, often blackish at base *Hym* even, at length slightly wrinkled, dull purplish-grey

Solitary to caespitose Edible Taste and odour agreeable Woods, mixed, fir Aug - Oct $3\frac{1}{2} \times 5\frac{1}{2} \times \frac{3}{8}$ in Never insect eaten Sometimes confounded with 1381, in which there are thick gills This is the Italian "Trombetta di morte" Mrs Hussey records the sale of this species in Covent Garden market

- 1783 C sinuosus** Fr (from the undulate pileus, *sinus*, a curve) *a b c*
P subfleshy, floccose, pale warm umber, pale ochre-umber or fuscous-grey *St* pallid cinereous or umber, becoming sooty-umber *Hym* even, at length veined, folds broad, sometimes rather distant, pallid, pale ochre-umber, almost white or dull in hue *Flesh* colour as *St*

Odour strong, musky Woods, fir, mixed frequent Aug - Nov
 $1\frac{3}{4} \times 2\frac{1}{2} \times \frac{1}{4}$ in Small forms are often confounded with 1789

- 1784 C crispus** Fr (from the crisped or curled pileus) *a b c*
P fleshy-membranous, brownish-ochre, fuliginous or fuscous *St* pallid, pale warm- or yellowish-umber *Hym* even, pallid, pale ochre-umber almost white or pale dull ochre *Flesh* pale ochre-umber

Edible odour strong musky Woods, mixed, frequent Aug - Nov
 $2\frac{1}{2} \times 2 \times \frac{1}{2}$ in Perhaps a variety of 1783 Small forms are almost identical with 1789 They may, with 1733 be forms of one species

- 1784a C pusillus** Fr (*pusillus* very small) *a c*

P convex, umbilicate, thin, rugose villous, cinereous *St* stuffed, somewhat compressed, grey *Hym* smooth or slightly wrinkled, pruinose, bluish-grey

Single to caespitose Bare soil under beeches Aug $\frac{1}{8} \times \frac{1}{8} \times \frac{1}{8}$ in

- 1785 C clavatus** Fr (from the club shape when young, *clavus*, a club) *a c*

P turbinate, truncate or depressed, dull pale yellowish mid pale purplish-salmon *St* attenuate downwards, colour as *P* *Hym* even, then corrugate dull brown-salmon, becoming lavender-white or brown-purplish *Flesh* pale dull yellowish or pale purple-salmon

Solitary or caespitose, sometimes branched Edible Woods beech, fir Oct $6\frac{1}{4} \times 3 \times 1\frac{1}{2}$ in Sometimes strongly resembles certain of the larger *Lactarii*

LXXXI THELEPHORA Ehrh

(From the sometimes papillose hymenium Gr *thuk*, a teat, *phuro*, to bear)

Hymenium inferior or amphigenous, continuous with and similar to the hymenophore, even, rugulose or ribbed, ribs sometimes more or less papillose Without the fibrillose stratum present in *Stereum Basidia* 4-spored *Spores* warted or echinulate (Fig 96)

Coriaceous, dry, fibrous, destitute of a cuticle, varied in form, pileate, clavate or resupinate Terrestrial or on stumps, branches, leaves, earth and stones, sometimes investing seedlings and living plants Some species more or less resemble brown flowers with

lacinate petals, 1794 and 1801 are fetid. The sequence of species is that of Fries, Berkeley, Stevenson and Saccardo.

Species 1786—1804

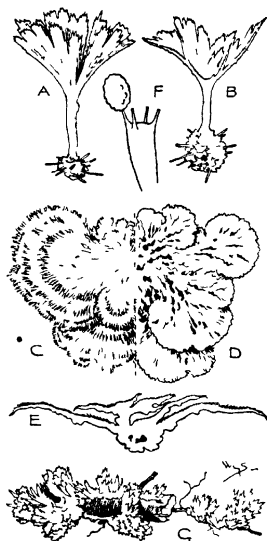


Fig 96—A B *Thelephora carstophylla* Pers. entire and in section one half natural size C D E *T. laciniata* Pers. upper and under surface and section one half natural size F basidium and spore $\times 70$ G *T. fistulosa* Fr. one half natural size

Erect, pileus entire or branched 1786—1794

Pileate, dimidiate, horizontal, sessile or effuso-reflexed

1795—1799

Resupinate, for the most part incrusting of various forms, hymenium even. Soft, subgelatinous when moist and with a compact, not strigose pileus, forming effused patches or dendritic masses on twigs, grass, etc 1800—1804

1786 T Sowerbel Berk (after James Sowerby) *a b* White, becoming yellowish

P infundibuliform, more or less lacinate and toothed, rough with radiating projecting processes. *St* attenuate downwards. *Hym* plain, setulose

On the ground amongst moss, under beech, rare Oct - Nov $2 \times 2\frac{1}{2}$ in. Sometimes occurs with a tuberous base as in 1791

1786a T vitellina Plowr (from the colour, like yolk of egg, *vitellus*, egg-yellow) *a*

P flabelliform, expanded upwards, marg slightly incurved
St attenuate downwards, but enlarged at base *Hym* rugulose, zoneless

Gregarious Dead fir branches amongst moss, interior of hollow firs Sept $1 \times 2 \times \frac{1}{2}$ in Differs from 1786 in its habit and pale egg yellow colour, sometimes pale sulphur with marg brighter and base of stem luminous yellow

1787 T pallida Pers (from the pallid colour) *a c* Pale yellowish-brown

P infundibuliform, strigoso squamose more or less lacinate and toothed *St* short or obsolete *Hym* costate, setulose

Cespitose Woods, pine beech Nov $1\frac{1}{2} \times 2\frac{1}{2}$ in Intermediate forms occur between this and 1786

1788 T multizonata B & Br (from the many zoned pilus *multus*, many) *a b*

P infundibuliform formed from confluent lobes and stems, marg lobed, crenulate, bright rufous flesh colour, zoned, darker *St* obsolete *Hym* slightly ribbed, smooth, paler than *P*

Cespitose Woods, on the ground rare Oct $6\frac{1}{2} \times 5$ in Simple fan shaped forms occur, with the substance split

1789 T undulata Fr (from the undulate pilus) *a c* Pale yellow-brownish

P coriaceous-membranous depressed even, somewhat smooth, marg entire *St* central, equal or attenuate downwards, villous *Hym* ribbed, somewhat setulose

On the ground Oct $\frac{1}{2} \times \frac{3}{4}$ in Often confounded with small forms of 1783 and 1784

1790 T caryophyllea Pers (from a fancied resemblance to a carnation, *Dianthus Caryophyllus*) *a c* Deep claret-brown or purple-brown

P subcoriaceous, depressed, fibrous-torn *St* equal *Hym* smooth, somewhat even *Flesh* very dark

Odour none On the ground, chiefly about the roots of fir rare Sept - Nov $2\frac{1}{2} \times \frac{3}{4} \times \frac{1}{2}$ in

1791 T tuberosa Fr (from the tubercous base) *a* Brownish salmon-white

P subcoriaceous, divided to top of stem into compressed branches, infundibuliform *St* obscurely furrowed or lacunose, bulbous *Hym* smooth *Flesh* dark brown with a whitish cortex

Scattered On the ground, rare $3\frac{1}{2} \times \frac{1}{2} \times \frac{1}{2}$ in

1792. T anthocephala Fr (from a fancied resemblance to a flower, Gr *anthos*, a flower, *kēphalē*, the head) *a b c*

P coriaceous-soft, pubescent, divided into large and small divisions,

apices usually fimbriate, yellowish- or claret-brown *St* short or obsolete, soon furcate, colour as *P*

Odour none Woods, on the ground Aug -Nov $2\frac{1}{2} \times 3$ in Somewhat resembles a *Clavaria* or *Xylaria hypoxylon* in habit Very variable in the form of the lacinae

- 1793 T clavularis** Fr (from the nail-like branches, *clavula*, a small nail) *a* Claret brown or rufous-fuscous

P coriaceous-soft, much and irregularly branched, branches round, attenuate, even, smooth, apices acute, pubescent, whitish or pale yellowish *St* short, thick, somewhat tuberous

Odour none On the ground $1\frac{1}{2} \times \frac{1}{2} \times \frac{1}{2}$ in Habit as 1792

- 1794 T palmata** Fr (from a fancied resemblance to the palm of the hand) *a b c*

Coriaceous-soft, much branched, pubescent, dark yellowish-brown or dark claret-brown, apices cottony-fringed, brownish-white *St* branched, flattened even, larger lobes wedge-shaped, the smaller sometimes in form of small infundibuliform pilei

Odour fluid, carrion like Woods, fir, maple Aug -Nov $3\frac{1}{2} \times 4\frac{1}{2}$ in
Habit as 1792

- 1795 T intybacea** Pers (from a fancied resemblance to the flowers of chicory, *Cichorium Intybus*) *a b c*

P fibrous, somewhat jagged and toothed, slightly lacinate, zoned or zoneless, rufous-ferruginous, deep sienna or deep claret-brown marg white *Hym* papillose, subfloccose, veined near marg, brownish-vinous, pale vinous at marg *Tufts* central and obconic lateral and subtriangular or spatulate

Gregarious, imbricate Pine-woods, pine twigs, *Vaccinium Myrtillus* Nov $2 \times \frac{1}{2} \times \frac{1}{2}$ in Intermediate forms occur between this and 1796 and 1797

- 1796 T terrestris** Pers (from the terrestrial habit) *a b c*

P soft, fibrous-strigose, lobed, usually zoneless, extended into a somewhat lateral, almost obsolete stem or base, deep vinous-brown, *z* when present darker, marg pale brownish-white, often with a narrow white-pubescent edge *Hym* radiatose, claret-brown-yellowish or salmon

Gregarious, imbricate Woods, fir July-Oct Diam $1\frac{1}{2}$ in

- 1797 T laciniata** Pers (from the fringed margin of the pileus, *lacina*, a flap) *a b c*

P coriaceous-soft, fibrous-sclaly, effuso-reflexed, somewhat zoned, deep sienna, somewhat claret, marg fibrous-fringed, whitish *St* when present incrusting branches as a thick membrane, paler than *P* *Hym* veined and papillose, colour as *St*

Imbricate, growing in strata, perennial Woods, pine, larch, branches, twigs, leaves, oak, heather, *Vaccinium Myrtillus*, earth, often on compacted masses of fir leaves Aug -Nov Diam $2\frac{1}{2}$ in At first forming a resupinate, yellowish or salmon brown film

- 1797a T atra** Weinm (from the black colour, *ater*, black) *a* Soft *P* springing from a tuberous base, purple-black above and below, sometimes cinereous, mid paler *Hym* smooth, setulose,

- black, white-pruinose *St* attenuate downwards, deformed sooty-black

Cæspitose Dead logs $3 \times 2\frac{1}{2} \times \frac{1}{4}$ in

- 1798 T biennis** Fr (from its period of growth, two years, *biennis*)
a b c

Coriaceous-soft, broadly incrusting, cinerous-fuscous *P* narrowly reflexed, tomentose, pale claret-brown marg fringed *Hym* in part resupinate, smooth, very slightly bristly, more or less plicate, the resupinate parts white-edged

Subimbricate Stumps, fir, on the ground amongst wood leaves and stones common Aug-Nov Resupinate hymenium $4\frac{1}{2}$ in Pilei 1 in

- 1799 T mollissima** Pers (from its very soft substance *mollis*, soft)
a b c

P subtomentose white to pale or dark claret-brown with a broad white tomentose marg *Hym* smooth, even claret-brown or pale snuff-colour *Flsh* claret-brown clouded and streaked darker to almost black

Subimbricate On the ground or on twigs leaves etc, oak beech frequent Sept-Oct $5\frac{1}{2}$ in Very variable, wholly effused palmate or like a soft stemless imbricate *Polyform* sometimes forming a thin faint brown ochre membrane with a paler margin Short stems are sometimes developed

- 1800 T cristata** Fr (from the short, fringe-like crest *crista*, a crest) *a b c* Pallid or ivory-colour

Incrusting, slightly tough, becoming branched, the apices crested or fringed *Hym* papillose

On the ground in woods or amongst or on moss dead leaves and grass, frequent Oct 5 in

- 1801 T fastidiosa** Fr (from the disgusting odour *fastidiosus*, disgusting) *a b c* White

Effused, incrusting, confluent, soft, irregular in shape, shortly branched and toothed *Hym* papillose white or biscuit

On the ground, involving twigs, rootlets, branches leaves, etc, sloe ivy, beech, beech mast, oak, acorns, moss Sept-Nov Group $5\frac{1}{2}$ in Odour the same as 1794

- 1802. T sebacea** Pers (from its tallow-like appearance and consistency *seba*, tallow) *a b c* White or pale yellowish-white

Effused, fleshy-waxy, becoming hard, incrusting, irregular in shape like melting and running tallow, marg determinate *Hym* collapsing, flocculoso-pruinose

Involving twigs, grass, moss, leaves, cones clover, ivy, *Hydnum auriscalpium*, etc Jan-Oct 5 in

- 1803. T crustacea** Schum (from its forming a crust) *a b c* Fuscous-brown

Broadly effused, somewhat fleshy, undulate and tubercular, marg white-floccose *Hym* papillose, somewhat bristly

On the ground, involving grass, leaves, etc, and on rotten sawdust, which it resembles in colour Feb-Nov $3\frac{1}{2}$ in

1804 *T cæsia* Pers (from its colour, *cæsius*, bluish-grey) *a b c*
 Cinereous bluish-grey

Effused, soft, continuous, often minutely veined or folded,
 marg determinate *Hym* even or slightly papillose, slightly
 bristly

On the ground, stumps, etc, involving earth, bark, twigs, etc Aug 3½ in

LXXXII CLADODERRIS Fr

(From the branched and coriaceous structure, Gr *klados*, a young
 branch, *derris*, a leathern coat)

Coriaceous *Hymenium* woody, radiate or rugulose with branched
 ribs, or narrow greatly ramified folds, persistent, at length roughened
 by a small base behind (Fig 97)

Typical species of *Cladoderris* re-
 semble *Lentinus* in appearance, with a
 squaroso-hispid pileus of the colour
 and texture of leather and a veined
 hymenium The species are usually
 stemless, but sometimes there is a
 pervious stem as in 1782 The plants
 are not usually small although small
 examples occur *Cladoderris dendritica*
 varies from 7 in to 2½ in in diam The
 prevailing size is from 4 to 6 in in diam
 Some species are large, infundibuliform
 and almost stemless

The species chiefly grow in Aus-
 tralia, Cuba and the Philippines

1805 *C minima* B & Br (from its
 very small size, *minimus*, the
 least) *a b* White

Flabelliform, springing from a
 stem-like or obsolete base, re-
 supinate *P* tomentose, some-
 what zoned *Hym* radiate on
 branched ribs

Birch Dec Diam $\frac{8}{16}$ in Resembling
 a dwarfed 1806

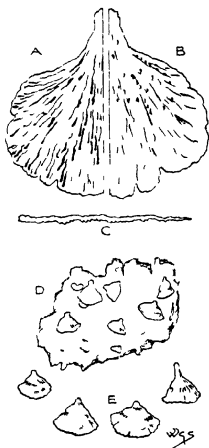


Fig 97 —A, B C, upper and lower
 surface and section of *Cladoderris*
austratica Berk drawn as a type of
 the genus, one half natural size D
C minima B & Br, natural size
 E, ditto, $\times 2$

LXXXIII STEREUM Pers

(From its hard substance, Gr *stereos*, hard)

Hymenium inferior, coriaceous, separated from the inodermous
 velvety-silky or fibrous-coated pileus or subiculum by an indeter-

minute fibrillose stratum, even, smooth, composed of basidia and hymenial cells compactly arranged side by side and of uniform height. *Basidia* 4-spored. *Spores* minute, roundish-ovate, white or coloured (Fig 98)

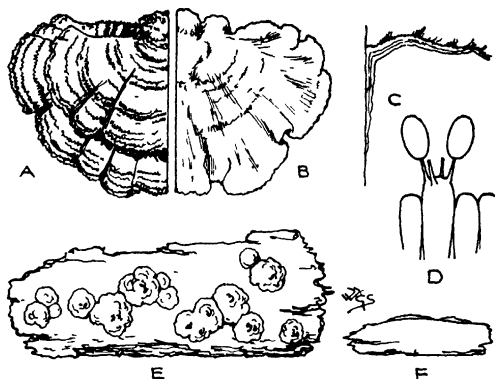


Fig 98—A, B C *Stereum hirsutum* Pers. upper and lower surface and section two thirds natural size. D basidium and spores. $\times 660$. E, F *S. lutei* Fr. upper surface and section two-thirds natural size.

Coriaceous or woody, mostly perennial, somewhat zoned, entire, definite in form, effuso-reflexed. Species 1806—1818

a *Apodæ* Pileus dimidiate, sessile or at first resupinate, then effusely reflexed, marginate. 1806—1814

b *Resupinatæ* Agglutinate, effused. marg. not free, or scarcely so. 1815—1818

a *Apodæ*

1806 *S. hirsutum* Pers. (from the hairy pileus, *hirsutus*, hairy)

a b c Coriaceous, rigid

P hispid-zoned, effused, reflexed, lobed and crisped, usually ivory buff varying dull primrose, orange or brownish, marg. subobtusely, white or whitish. *Hym* even, smooth, obscurely zoned, juiceless, usually warm-biscuit

Imbricate. Stumps, oak, beech, birch, poplar, laburnum. Jan—Dec. 4 in. Said to cause "fly" wood and "yellow and white piped" wood. Pileus often green at the base from the growth of algae. A deep rose coloured stain is frequent on this plant caused by a parasitic mould, *Hypomyces rosellus*. Var. *subcostatum* Mass. *Hym* costate or rugose. Var. *cristulatum* Quel. *P* strigose, grey

- 1807 S ochroleucum** Fr (from the yellowish-white pileus, Gr *ochros*, pale yellow, *leukos*, white) *a c* Coriaceous-membranous
P reflexed, expanded, flaccid, silky, zoned, hoary-yellowish, shaded pale brownish *Hym* even, smooth, cracking, yellowish or greyish
 Wood, fir, maple, oak, hornbeam Jan 2½ in
- 1808 S purpureum** Pers (from the purple hymenium, *purpureus*, purple) *a b c* Coriaceous-soft
P effuso-reflexed, subimbricate, zoned, villosa-tomentose, pale yellowish *Hym* even, smooth, bright rose- or dark-purple, clouded, salmon *Flesh* sometimes 1 in thick, bright rose-purple, 5-7 zoned
 Dead wood, horse chestnut, sycamore, hornbeam, fir, poplar, willow, birch, elm, twigs, grass May-Dec 3½ in Said by Prof J Percival to be the cause of "silver leaf" disease in plum, peach, apricot and sloe
 Var *atromarginatum* W G Sm A beautiful and apparently distinct plant, illustrated with drawings by Purton and Sowerby, in the British Museum collection, it has been named *Auricularia elegans* Sow t 412, f 1 Berkeley regarded the drawings as a variety of *Stereum purpureum* Pers
P woolly or frosted, white, with a narrow black zone near the white margin On a moss covered tree
- 1809 S sanguinolentum** Fr (from the habit of the hymenium, bleeding when bruised, *sanguis*, blood) *a b* Coriaceous-thin
P effuso-reflexed, substrate, adpressedly silky, pale brownish-yellow, marg acute, white *Hym* even, smooth, pruinose when old, brown-whitish or ashy, rarely as *P*
 Wood, branches, twigs, pine, common Jan-Dec 3½ in
- 1810 S conchatum** Fr (from the shell-like shape, *concha*, a shell) *a* Coriaceous-thin
P conchato-reflexed, subcrisped, rugose, glabrous, obscurely zoned, dull yellowish or brown-buff-whitish *Hym* even, smooth, dry, brown
 Subimbricate Fir 1½ in
- 1811 S spadiceum** Fr (from the date-brown hymenium, *spadix*, date-brown) *a b* Coriaceous
P effuso-reflexed, hispid-zoned, very hispid at base, pale yellowish or orange-brownish *Hym* even, smooth, brown-vinous over pale yellow, not dark, or claret-brown, exuding red juice when bruised
 Stumps and branches, ash, oak, common Jan-Dec 4¾ in
- 1812 S rugosum** Pers (from the commonly wrinkled hymenium, *rugæ*, a wrinkle) *a b c* Coriaceous-rigid
P effuso-reflexed, shortly reflexed, obtusely marginate, pruinose, then smooth, buff, paler behind, zoned sienna *Hym* pruinose, yellowish-brown or cream-buff, shaded pale livid, becoming pale vinous where bruised
 Stumps, fir, hornbeam, oak, hazel, very common Jan-Dec 6½ in
 Var *Lauro cerasi* Stev grows on cherry laurel, *Prunus Lauro cerasus*

1813. *S. vorticosum* Fr (from a fancied resemblance in the habit to waves in a vortex or whirlpool) *a b* Coriaceous

P effuso-reflexed, imbricate, obscurely zoned, rugose, strigose, crisped, pale buff, marg white *Hym* smooth, somewhat ribbed, salmon, or purplish-salmon, sometimes orange shaded

Beech $4\frac{3}{4}$ in Intermediate between 1806 and 1808

- 1814 *S. rufum* Fr (from the rufous pileus) *a b c* Rigid, coriaceous-cartilaginous

P effuso-reflexed, rugose-rough, deep vinous-brown, with pale yellowish marg and white edge *Hym* minutely cracked, grey-pruinose

Dead pine, ash, poplar Sept-Mar $3\frac{1}{2}$ in Effused and immarginate when young

b Resupinate

- 1815 *S. Pini* Fr (from the habitat, pine bark) *a b c*

Coriaceous-cartilaginous, adnate as a shield, marginate, smooth beneath, at length bullate *Hym* noduloso-rough, purple flesh-colour, then fuscous, deep sienna or deep vinous-brown

On Scotch fir Nov $3\frac{1}{4}$ in Sometimes identical in colour with the pine bark and easily overlooked

- 1816 *S. frustulosum* Fr (from the habit, breaking to fragments, *frustum*, a piece) *a c*

Woody, tubercular, thick, crowded and subconfluent, breaking to fragments, smooth beneath, and at the absolutely marginate circumference *Hym* convex, pruinose, blackish-brown, cinnamon, becoming salmon

Wood and bark, oak, beech, branches, hard to rotten sticks $2\frac{1}{2}$ in frustules $\frac{1}{8} \times \frac{1}{8}$ in

- 1816a *S. quercinum* Potter (from the habitat, oak, *quercus*) *a*

Coriaceous, at first filling in between crevices of bark *Hym* slightly papillose, young examples with a central papilla, pale buff, becoming cinnamon-whitish, marg slightly raised from matrix, dark brown, finely zoned beneath, edge lighter Abundant white mycelium in and under bark

Oak bark Jan-Nov $2\frac{3}{4} \times 1\frac{1}{2}$ in

- 1817 *S. acerinum* Fr (from its usual habitat, maple branches, *acer*, maple) *a b c*

Crustaceous, adnate, effused, even, usually smooth, sometimes minutely nodulose or rugoso-rough, often transversely cracked, white, pale brownish-white or ivory

Maple, fir, juniper, elm Dec $4\frac{1}{4}$ in A slight repand hirsute pale yellowish margin or pileus is sometimes developed

- 1818 *S. stratosum* B & Br (from the stratos habit) *a*

Stratose, the pallid strata at length separating, effused, smooth, here and there wrinkled, bright ochraceous-white, becoming yellow

$3\frac{3}{4}$ in

LXXXIV HYMENOCHÆTE Lév

(From the bristly hymenium, Gr *hymen*, a membrane,
chaite, a bristle)

Pileus coriaceous, variable in form *Hymenium* plane to papillose, velvety, with minute, rigid, persistent, bright brown setæ or modified



Fig 99 — a *P*, *Hym no ch æ te ru bigi no sa* Lév entire and in section one half natural size c part of hymenium showing cystidium basidium and spores X 500

cystidia three or four times the length of the basidia, in 1830 the setæ at first very pale *Basidia* tetrasporous *Spores* white or olive (Fig 99)

Allied to *Pneophora*

Species 1819—1831

a *Apoda* No stem *Spores* white, *cystidia* acuminate, plane 1819, 1820

b *Resupinata* With a resupinate habit, except 1827

Spores white, *cystidia* acuminate, plane or rough 1821—1824

Spores olive 1825—1827

Cystidia subclavate, sometimes rough 1828—1831

a *Apoda*

1819 **H rubiginosa** Lév (from the iron-rust colour of the hymenium, *rubigo*, rust) a b c

P effused, reflexed, somewhat imbricate, zoned, velvety, deep orange-sienna, marg orange *Hym* papillose, ferruginous or umber, sometimes deep claret-brown

Hard wood, twigs, oak, alder, sometimes spreading to moss Jan—Dec 6 in

1820 **H Avellana** Lév ex Cooke (from the habitat, hazel, *Corylus Avellana*) a c

P effused, reflexed, zoned, villous, bay-brown, marg obtuse, free, narrowly reflexed *Hym* papillose, pale ferruginous or pale brown, here and there bleeding, sometimes minutely cracked all over

Hazel, beech, fir, etc $\frac{1}{2}$ —1 in

b Resupinate

- 1821 H nigrescens** Mass (from the at length blackish hymenium, *nigriceo*, to be blackish) *a b*
P circular, flattened, marg free, a little reflexed *Hym* papilloso-rough, brownish- or greyish-umber, becoming blackish, with irregular black zones *Flesh* indigo umber
 Solitary, gregarious or confluent Dry wood May 3½ in
- 1822 H Stevensonii** B & Br (after the Rev Dr John Stevenson) *a b*
Hym pallid, fawn-colour, or ivory-salmon with an obtuse slightly elevated paler marg
 Yew Sept 2 in This is *Stereum rufohirsutum* Stev
- 1823 H leonina** B & C (from the tawny colour, Gr *leon*, a lion) *a c*
Hym somewhat papillose, ferruginous, saffron, orange or orange-sienna, sometimes dark, with a few lighter spots marg tomentose, lighter
 Dead wood, holly 3½ in
- 1824. H fuliginosa** Lev (from the smoke-coloured hymenium, *fuligo*, soot) *a c*
Hym somewhat papillose, dark smoky bay-brown or opaque claret-brown marg lighter
 Wood 2½ in
- 1825 H corrugata** Lev (from the wrinkles or folds on the hymenium, *corrugo*, to wrinkle) *a c*
 Somewhat effused, closely adnate, soon grumous *Hym* papillose, red, red-pale- or vinous-brown, or deep claret sienna, sometimes darker at marg
 Bark, alder, maple oak, blackberry, hawthorn, holly, ling *Vaccinium*, *Myrica* Mar-Dec 5½ in Twigs, leaves, etc, are commonly agglutinated to the hymenium Becomes much cracked in drying
- 1826 H croceoferruginea** Mass (from the orange-brown hymenium, *crocus*, saffron, *ferrugo*, iron-rust) *a*
 Effused, broadly encrusting, very thin *Hym* papillose, saffron, yellow-sienna, tawny, pale sienna or yellowish-chocolate marg paler or yellow
 Dead dog rose 3½ in Hymenium cracking
- 1827 H tabacina** Lev (from the tobacco colour) *a b c*
 Somewhat coriaceous, thin, flaccid, effused, imbricate *P* silky, then smooth, sienna-orange, pale or deep sienna or purplish-umber, zoned sienna, base blackish umber, marg reflexed, ivory *Hym* ferruginous, deep- or crimson-sienna, with a white, ivory, yellow or orange marg
 Somewhat uncommon Trunks, branches, etc, willow, hazel, plum, oak, birch, lilac, blackberry, cotoneaster, rhododendron, *Andromeda*, *Vaccinium*, sometimes spreading on to moss Oct-Mar 3½ in
- 1828 H crassa** Cooke (from the thick substance, *crassus*, thick) *a*
P velvety, pallid-rufous, marg thick, at length free *Hym* unequal, colour as *P*
 Trunks 4½ in

- 1829 *H abietina* Mass (from the habitat, trunks of fir, *abies*) *a b*
P effused, tomentose, sienna-brown *Hym* papillose, fuscous-ferruginous, dull yellowish-purple, brownish-salmon or claret-brown, clouded ivory-ochre or purple-lilac, becoming pale
 Decaying fir, spruce-fir $2\frac{1}{2}$ in Cracking when dry
- 1830 *H disciformis* W G Sm, *Thelephora disciformis* DC (from its frequent disc shape) *a* White to ivory-white
P disciform, thinner towards the definite free naked marg
Hym unequal
 Trunks, oak $1\frac{1}{2}$ in This is *Stereum disciforme* Fr Cooke has placed it in *Penophora*, and has illustrated the plant with granular seta Saccardo follows Cooke My plants and those in British Museum have smooth setæ
- 1831 *H Boltonii* Cooke (after James Bolton of Halifax) *a*
P villous, white to ochre or pale lavender, zoned brown or black
Hym white to pale brown, becoming ferruginous-fuscous or dark red, marg crisped, free, thin
 Bird cherry Feb $1\frac{1}{2}$ in Cracking when dry

LXXXV CORTICIUM Pers

(From the usual habitat, bark, *cortex*)

Resupinate *Hymenium* often broadly effused, in a few species the margin is slightly upraised, amphigenous, even or tuberculose,

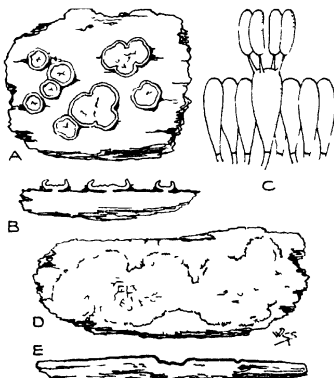


Fig 100—A, B *Corticium salicinum* Fr entire and in section one half natural size C hymenium with basidia and spores $\times 500$ D, E *C. calicium* Fr entire and in section one half natural size

waxy or fleshy-soft, usually contracting and cracking when dry, smooth, arising immediately from the mycelium without an intermediate

fibrillose stratum, without setæ or modified cystidia *Spores* white (Fig 100)

Usually growing on bark and wood, sometimes on sawdust, earth, fir-cones, stems of herbaceous plants, leaves, moss, etc. Some species are phosphorescent. Young examples of some species of *Corticium* may readily be confounded with *Peziza*. The hymenium of some species occasionally exhibits pale rose-coloured to deep crimson stains caused by the presence of a parasitic mould, *Hypomyces rosellus* Species 1832—1866

Marginate, margin free determinate 1832—1837

Margin usually indefinite, byssoid, strigose, pulverulent or mucedinous-clouded

Hymenium white, or ochreous 1837a—1851

Hymenium brightly coloured 1852—1864

Amphigenous, very thin, innate, throwing off the bark

1865, 1866

1832 C salicinum Fr (from the habitat willow *salix*) *a c*

Coriaceous, soft, rigid when dry, small fixed by centre *Hym* somewhat rugulose, becoming finely but sparingly cracked, deep claret-crimson, marg reflexed all round villous, white or pale rose

Gregarious Willow rarely poplar Aug-Sept $\frac{1}{2}$ -1 in Resembles a *Peziza*

1833 C amorphum Fr (from the supposed ambiguous structure of the hymenium (at *a*, without, *morphe*, form) *a b c*

Somewhat coriaceous, small, waxy-plant, cup shaped then flattened *Hym* white-grey or yellowish-umber marg white

Gregarious Silver fir, larch Aug-Nov $\frac{1}{2}$ - $\frac{3}{4}$ in Resembles a *Peziza*. This is *Peziza amorpha* Pers, *Thelphora amorpha* Fr. It grows in company with *Peziza calicina*, with pallid examples of which it may be easily confounded. When dry the *Corticium* and *Peziza* resemble each other closely.

1834 C evolvens Fr (from the habit, as of new plants emerging from the margins of older ones *evolve*, to unroll) *a b c*

Soft, cup shaped to effuso reflexed, gregarious, becoming confluent *Hym* somewhat rugose or tubercular, cracking, pale sienna, clouded darker or pale yellowish-brown

Bark, cherry, willow, poplar, frequent Oct-April $\frac{1}{2}$ -1 $\frac{1}{2}$ in

1835 C porosum B & C (from the pore-like markings on parts of the hymenium) *a*

White, becoming pale ochre, marg free, reflexed

Wood $\frac{1}{2}$ -3 in The "pores" somewhat resemble the true pores of *Porothelium*, they are of different sizes and appear as thin dried circular lines, such as are left by minute drops of moisture in drying

- 1836 C populinum** Fr (from the habitat, poplar, *populus*)
Soft, tuberculiform, soon confluent and effused, at length involute
Hym uneven, ferruginous-cinereous, whitish-tomentose beneath
Poplar
- 1837 C Lyen** Cooke ex Mass (from the usual habitat, *Lycium*) *a*
Effused, thin *Hym* papillose, lilac or white-salmon, marg
free, somewhat byssoid, pallid
Lycium, lilac 4-3 in
- 1837a C seriale** Fr (from the habit, growing in long, gregarious
rows, *serus*, a row)
Elongato effused, adfixed to matrix, thin *Hym* rimose, thin, papil
lose, dull ochreous, white pruinose marg fibrillose whitish
Wood, pine
- 1838 C calceum** Fr (from the chalk-white colour, *calx*, lime) *a b c*
Broadly effused, agglutinate, waxy *Hym* even, smooth, rigid,
cracking, white or pallid, becoming pale dull salmon, marg
finely pulverulent, white
Wood, pine, blackberry lilac willow, lime, hornbeam, birch, *Myrica*,
leaves, earth May-Aug 4-5 in This is *C cretaceum* Pers
- 1839 C serum** Fr (from its time of growth—winter, *serus*, late,
growing in winter) *a b c*
Broadly effused, incrusting, fleshy to thin *Hym* smooth to
pruinose, crowded with papillæ, splitting into flocci, white,
marg fading in a mucedinous manner into the wooden matrix,
sometimes forming finely pulverulent cloud-like growths
Trunks, birch alder hornbeam 4-3½ in This is *Hypochnus* Sacc,
Lycomyces Karst Often resembling spluttered drops, as from a wax candle
- 1840 C scutellare** B & C (from the salver like form it sometimes
assumes *scutella*, a salver) *a c*
Broadly effused *Hym* cracking into minute areolæ, with inter
mediate finely-folded rugose patches, whitish, becoming warm
biscuit-buff marg forming thin cloud like growths in mature
examples
Rotting logs, fir, oak, cedar, dead herbaceous stems 6 in
- 1841 C fœtidum** B & Br (from its fetid odour) *a*
Effused *Hym* cracking, white to ivory and ochreous, clouded
pale grey and faint sienna
Sawdust 4-2½ in
- 1842 C lacteum** Fr (from the milk-white colour, *lac*, milk) *a b c*
Broadly effused, submembranous *Hym* waxy, cracking and
parting when dry, white to pale biscuit with mid darker, some
times pale straw or pale orange-colour, sub and marg loosely
fibrillose, often fringed with long branching strands of white
mycelium, sometimes with pilose or farinose cloud-like growths
Trunks and beneath bark, chestnut, beech, holly, lime, frequent Nov-
Feb 6 in

1843 C læve Pers (from the even hymenium *lævis*, even) *a b c*

Effused, membranous, separating from matrix *Hym* even, smooth, rarely papillose, commonly with vacuoles exposing the wood, cracking, white to sienna-yellowish, flesh-colour, livid, salmon or pale red, marg sometimes broad, edge pilose, ivory to white, sometimes with radiating strands of white mycelium

Wood, bark, sticks, pine, poplar, birch, alder, oak, very common Nov - May $8\frac{1}{2}$ in Some conditions resemble 1770

1844 C confluens Fr (from the habit—forming confluent patches)*a b c*

Agglutinate, submembranous *Hym* even, naked, cracking, somewhat concentrically rugose when young hyaline becoming white, lavender-brown-white, yellowish-brown, pale brownish or pale rose-purple marg spreading in a dentate manner

Bark, beech, alder, ash, willow Mar - Aug $5-3\frac{1}{2}$ in

1845 C nudum Fr (from the hymenium becoming bare *nudus*)*a b c*

Waxy, agglutinate, very thin, becoming rigid *Hym* flesh-colour, white-salmon, umber-ivory or yellowish-buff, clad with fugacious white meal cracking when dry marg determinate, smooth

Dead wood, bramble, alder, yew, willow Aug - April $\frac{1}{4}-4\frac{1}{2}$ in

1846 C arachnoideum Berk (from the mycelium—like spider-web,

Gr *arachne*, a spider) *a b c*

Very thin, effused, delicately flaxy *Hym* waxy, continuous or somewhat papillose, somewhat cracked when dry, white or faintly clouded sulphur, yellowish or brownish, floccose beneath, marg white fibrillose

Wood, bark, oak, pine, twigs, leaves, grass, lichens, etc Oct - Mar $7\frac{1}{2}$ in

1847 C radiosum Fr (from the radiate habit) *a b c*

Membranous, subrotund with radiate lobes *Hym* smooth, glabrous, irregularly papillose, cracking when dry, primrose-white to dark ochreous or buff, adpressedly fibrillose beneath, marg fibrilloso-radiate, often with long strands of mycelium

Elm, birch, pine, hornbeam, naked wood Oct - Feb $4\frac{1}{2}$ in

1848 C Typhæ Fuck (from the usual habitat, bulrushes, *Typha*, a bulrush) *a b c*

Longitudinally effused, thin, at first forming white byssoid spots, smooth then mealy, cracking when dry, ivory to tan, marg usually ragged or ill-defined

Dry leaves of *Typha latifolia* and species of *Carex* $1\frac{1}{2}$ in

1849 C Sambuci Pers (from the habitat, elder, *Sambucus*) *a b c*

Broadly effused, indeterminate, encrusting, somewhat innate, cracking and breaking into floccules when dry, white

Very common Aug - May 7 in Sometimes forming hyaline-whitish spotty cloud-like growths

- 1850 C lactescens** Berk (from its habit of exuding a watery milk-like fluid, *lac*, milk) *a b c*
 Waxy-soft, agglutinate, undulate or rugose at length cracked, pale flesh-colour or pale salmon, marg shortly byssoid
 Dead wood, ash, willow Oct-Feb 6 in Intersuces of cracks silky
 Superficially resembles 1898
- 1850a C strigosum** Pers, var **filamentosum** W G Sm, *Thelephora byssoides* DC (from the thread like habit, *filum*, a thread)
 Sub web-like, filamentous, string-like, dull yellowish, externally pulverulent
 On *Amaryllis*
- 1850b C violeum** W G Sm, *Hypochnus violaceus* Quel (from the colour)
 Byssoid, thin, orbicular *Hym* velvety-floccose varying lilac and rose, marg thin pallid
 Dead branches, pear, apple
- 1851 C lacunosum** B & Br (from the hymenium, full of openings, *lacuno*, to hollow out) *a*
 Broadly effused, soft, pulverulent, lacunose, exposing matrix beneath, tawny, ochreous or cinnamon, clouded pale amber
 Mic woolly, tawny
 Wood, branches 5 in
- 1852 C roseolum** Mass (from the rose-coloured hymenium) *a b*
 Broadly effused, indeterminate, very thin, waxy *Hym* smooth, continuous, not cracking, pale rose or salmon, marg whitish, silky
 Worked wood, palings Nov 7 in
- 1853 C aurora** B & Br (from the rosy colour, like the dawn, *aurora*) *a b*
 Effused, thin, agglutinate, rosy, becoming pale salmon with a lighter indeterminate marg
 Dead leaves and stems of *Carex*, *C paniculata* Feb 2½ in
- 1854 C anthochroum** Fr (from the rosy flower-like cloudings, Gr *anthos*, a flower, *chros*, colour) *a b c*
 Broadly effused, membranous, floccoso-velvety, clouded brick-red or rose on a pale brownish ground
 Investing dry bark, twigs, etc, sycamore, birch, spreading to earth, rare
 Nov-Mar 6½ in Sometimes forming small, dark vinous patches
- 1855 C molle** Fr (from its soft substance, *mollis*, soft) *a c*
 Irregularly rounded, floccoso-fleshy, loosely interwoven *Hym* waxy, papillose, cracked when dry, pallid, pale sienna to reddish-buff, marg naked, paler, sometimes byssoid
 Fir 3½ in
- 1856 C polygonium** Pers (from the hymenium, often covered with small polygons, from the confluence of small growths) *a b c*
 Adnate, determinate, soon hardened, somewhat grumous *Hym*

pruinatc, at length more or less cracked, livender-white or flesh-colour, red beneath

Dead branches, hornbeam poplar sloe, lilac, elm *Robinia* frequent
Mar - April $\frac{1}{2}$ - $3\frac{1}{2}$ in Growing in small round patches from the ostiolo
of *Sphaeria*, at length confluent and forming large patches which become
rugged with age

- 1857 **C maculæforme** Fr (from the rose-coloured spots on the
hymenium *macula* a spot, *forma* form) *a*

Orbicular, confluent, indurate, thin *Hym* spuriously papillose,
purple with rose-coloured spots and smaller purple spots,
marg determinate, pale purple

Dead wood $2\frac{1}{2}$ in

- 1858 **C sanguineum** Fr (from its blood red colour *sanguis*,
blood) *a b c*

Broadly effused, indeterminate even, smooth loosely adherent,
arachnoid beneath slightly cracking when dry bright deep
cinnabar crimson clouded purple and black crimson marg
sometimes broadly floccose with cinnabar white mycelium,
sometimes forming cinnabar white cloud-like growths

Wood, squared wood pine larch spreading to leaves Oct - Feb 10 $\frac{1}{2}$ in
Deeply staining wood a permanent blood red colour Rather fertile

- 1859 **C Carlylei** Mass (after Dr David Carlyle of Carlisle) *a*

Effused in elongate patches agglutinate, between waxy and soft
Hym even, smooth dull orange marg white

Oak bark $3\frac{1}{2} \times \frac{7}{8}$ in

- 1860 **C FLAVIFOLIUM** Mass (from the yellowish hymenium *flavus*,
light yellow) *a*

Effused, membranous, loosely adhering *Hym* pallid yellowish,
or very pale lemon with a determinate white marg

Trunks of tree ferns 3 in

- 1861 **C cœruleum** Fr (from its frequent azure-blue colour *cœruleum*,
azure-blue) *a b c*

Broadly effused, adnate *Hym* waxy-soft, papillose tomentose,
slightly cracking, deep smalt or Prussian-blue, sometimes
almost black or clouded deeper and lighter azure-blue marg
determinate, bordered with a fine white line or narrowly flax
and pale blue, sometimes upturned

Sticks, dressed wood, dead wood, gates, rails, fir, chestnut oak, alder,
common Dec - April 6 in Sometimes phosphorescent Sometimes
black when dry

- 1862 **C violaceolividum** Fr (from its violet and livid clouding) *a c*

Somewhat effused, adnate, indurate *Hym* spuriously corrugate,
tuberculose, mealy, cracking all over when dry, livid purple,
clouded darker or indigo-white, clouded pale brown, marg
paler or yellowish

Dead wood, willow, lilac $4\frac{1}{2}$ in

1863 C lividum Pers (from the livid colour) *a b c*

Effused, closely adnate, between waxy and soft *Hym* even, sometimes rugose or tubercular, somewhat viscid when moist, cracking when dry, variable in colour, clouded pale buff, pale liver or livid azure-blue and fuscous-purplish marg pulverulent, granular or determinate, paler or white

Dead birch, elm, rare Oct-June 5 in

1864 C atrovirens Fr (from the colour, blackish, shaded greenish, *ater*, black, *viridis*, to be green) *a*

Irregularly effused, tomentose beneath *Hym* waxy, smooth, pruinose, somewhat pale dull indigo with a greenish shade, marg tomentose

Rotten wood, leaves, sticks, rare 3 in

1865 C nigrescens Fr (from its blackish colour, *niger*, to be blackish) *a c*

Effused, interrupted, waxy, agglutinate *Hym* here and there papillose, cracking when dry, yellowish then blackish or brown-whitish to brown slate, densely powdered with large spores

Branches, sticks, under the bark, oak 3 in

1866 C comedens Fr (from its habit of destroying the bark, when very thin, under which it grows, *comedo* to consume) *a b c*

Effused, innate, exposed only when the bark splits *Hym* even, sometimes papillose or finely granular, slightly viscid when moist, cracking when dry and peeling from matrix, flesh-colour, lilac or variegated pale dull buff and pale to somewhat dark purplish

Sticks, branches, hazel, alder, hawthorn, chestnut, pine, oak, hornbeam, very common Aug-Mar 5½ in Never found above the bark

LXXXVI **PENIOPHORA** Cooke

(From the shuttle-like setæ, metuloides, or modified cystidia borne on the hymenium, Gr *penion*, a shuttle, *phero*, to bear)

Resupinate, effused, coriaceous or subcarnose *Hymenium*, as seen under a pocket lens, setulose, cystidia projecting, fusiform, colourless, hyaline at first smooth then verruculose above with minute particles of oxalate of lime, which are derived from water containing this substance in solution. The cystidia give the hymenium a velvety appearance, but they sometimes break away and leave the hymenium smooth, in this condition care must be taken not to confuse the species with *Corticium*. *Basidia* tetrasporous. *Spores* white, hyaline (Fig 101)

Growing on wood, bark, leaves, etc Young examples of some species may be readily confused with *Peziza* Species 1867—1882
 Margin free, more or less incurved 1867—1870
 Margin adpressed, often indeterminate 1871—1881
 Setæ aggregate in fascicles 1882

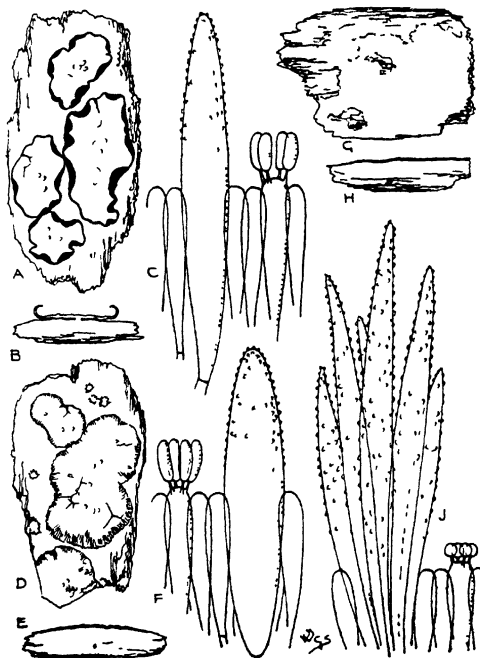


Fig 101 —A, B, *Peniophora quercina* Cooke entire and in section one half natural size C basidium spores and cystidium of ditto $\times 500$ D, E *P. rosea* Mass entire and in section, one half natural size F, basidium spores and cystidium of ditto $\times 500$ G, H *P. hydnoidea* Cooke & Mass entire and in section one half natural size J basidium, spores and cystidium of ditto $\times 500$

1867 **P. quercina** Cooke (from the usual habitat, oak, *quercus*) a b c
 Cartilaginous, membranous, at first agglutinate, then fixed at
 centre, rigid, smooth, slightly cracking when dry, turning black
 beneath *Hym* papillose, or irregularly rugose, sometimes

rugged all over, flesh-colour, pale purplish-rose, pale yellow-buff, dull salmon or liver-whitish

Oak, birch, lilac, lime, hazel, ash, chestnut Aug-April 7 in

1868 P peizoides Mass (from its resemblance to *Peziza*, Gr *aidos*, resemblance) *a*

Somewhat leathery, cup-shaped, then flattened, fixed at centre, externally pallid villous *Hym* continuous, ochreous or somewhat pale umber, mid darker, marg white

Branches, horse chestnut $\frac{1}{4}$ - $\frac{3}{8}$ in

1869 P gigantea Mass (from its large size, *giganteus*) *a b c*

Broadly effused, swelling when moist, fleshy-tough, waxy, cartilaginous when dry, slightly cracking, marg free, incurved *Hym* even, continuous, partly granular, white to ivory, shaded greivish, marg rugose, grey-ivory beneath

Stumps, trunks, branches, fir, larch, sometimes investing fir leaves, moss and grass, common Oct-April $8\frac{1}{4}$ in

1870 P Crosslandii Mass (after Charles Crossland of Halifax)

Effused, thin, soft when moist, wholly separating from matrix when dry *Hym* pale grey, faintly ochreous when dry

Wood and bark, fir Differing from **1869** in the smaller spores and shorter cystidia

1871 P limitata Cooke (from the margin limited by a black line) *a*

Somewhat orbicular, grumous, indurated, smooth *Hym* lurid, lavender-brown, shaded brown

Wood and bark, broom $3\frac{1}{2}$ in

1872 P rosea Mass (from the rose-coloured hymenium) *a b c*

Effused, very thin, slightly cracking, showing grain of wood beneath *Hym* minutely papillose in middle, rose or rose-salmon becoming pale, sometimes clouded pale brown, marg often finely fimbriate or rugoso-radiate and paler, sometimes tinted pale sulphur

Wood bark, birch, poplar, willow, walnut, rose, often spreading over grass, lichens, etc Oct-Mar $4\frac{3}{4}$ in Becoming rufous salmon when dry *Illosporium roseum* is probably a young condition of this or of **1873**

1873 P incarnata Mass (from the flesh coloured hymenium, *incarnatus*, flesh-coloured) *a b c*

Somewhat waxy, agglutinate, thin, cracking when dry *Hym* dull pale red, pale vermilion, red-orange, salmon- or vermilion-white, or salmon, when young sometimes white, marg radiate, varying darker or paler

Wood, bark, bramble, gorse, birch, beech, laburnum, alder, plane, fir Dec-April $5\frac{1}{2}$ in *Illosporium carneum* is probably a young state of this or of **1872**

1874 P ochracea Mass (from the ochreous-yellow hymenium) *a c*

Broadly effused, cracking when dry *Hym* pallid ochreous, at first sprinkled with scattered shining gold-like atoms, sometimes pale vinous

Wood, bark, ash $5\frac{3}{8}$ in This must not be confounded with **1895**

- 1875 P cinerea** Cooke (from the ash-coloured hymenium, *cinis*, ashes) *a b c*
 Waxy, becoming rigid, confluent, cracking when dry *Hym* minutely papillose or granular, cinereous or lurid, umber-white or white-lavender, often clouded umber, here and there pale salmon-white, marg usually definite
 Wood, bark, herbaceous stems, pine, oak, poplar, lime, ash, honeysuckle, ivy, bramble, *Lycium*, *Viburnum* Aug-June 6 in
- 1876 P velutina** Cooke (from the velvety hymenium *vellus*, fleece) *a c*
 Broadly effused, adnate, very delicate, cracking when dry *Hym* even, flesh-colour, rose-salmon, ivory, scarlet-white, sometimes rose-lavender, paler at the somewhat broad, fleecy, usually fimbriate marg, extending in radiate strands of mycelium
 Wood, bark, pine, bracken, sometimes involving moss Oct-May 6 in
- 1877 P rimosa** Cooke (from the cracked hymenium *rima*, a cleft) *a*
 Broadly effused, agglutinate, cracking into areolæ with silky interstices *Hym* cinereous, pallid fawn, or somewhat pale brown-sienna-ochre
 Bark, wood 4 in Differing from 1876 principally in the larger spores
- 1878 P scotlea** Mass (from the first place of finding, Scotland) *a*
 Broadly effused *Hym* cinnamon or pale brownish-ochre, obscurely vinous and clouded opaque cinnamon-brown marg fibrillosely-radiate
 Inside bark 3½ in The irregularities of the inner side of the bark show through the substance
- 1879 P phyllophila** Mass (from its habitat, leaves Gr *phyllon*, a leaf, *philos*, loving) *a*
 Broadly effused, membranous *Hym* continuous, ivory, sometimes faintly sulphurous or ochreous marg fibrillose or indeterminate
 Dead leaves 4½ in Must not be confounded with the non British *Corticium epiphyllum*, from which it is distinguished by its setæ
- 1880 P pubera** Sacc (from the downy hymenium, *puber*, downy) *a c*
 Broadly effused, closely adnate, very delicate, cracking *Hym* even, white, clay-colour or colour of milky coffee, marg determinate to indeterminate but minutely ragged, sometimes slightly pulverulent
 Oak, beech, mountain ash, rough pieces of rotten wood Jan-Feb 3½ in
- 1881 P terrestris** Mass (from its occasional place of growth, the ground, *terra*) *a b*
 Effused, very thin *Hym* cinereous, pallid fawn or lavender-slate-white
 Earth, twigs, branches, leaves 5 in Resembles pale dull lavender clouds

1881a P Chrysanthemi W G Sm, *Corticium Chrysanthemi* Plowr
(from the habitat, base of living chrysanthemum stems) *a* .
Effused, incrusting, indeterminate, uneven from the irregularities
of the matrix *Sub* filamentous *Hym* indeterminate, white
Autumn 5 in

1882 P hydroides Cooke & Mass (from the resemblance of the
hymenium to certain resupinate species of *Hydnum*, *eidos*,
appearance) *a*
Broadly effused, thin, somewhat innate *Hym* cinereous or dull
lavender-white, clouded
Bark Nov $5\frac{1}{2}$ in Somewhat resembles *Grandinia*

LXXXVII CONIOPHORA DC

(From the dust or spore-powdered hymenium ,
Gr konis, dust, *phoreo*, to carry)

Resupinate, broadly effused, margin defined or indeterminate,
closely attached to the matrix *Hymenium* even, powdered with

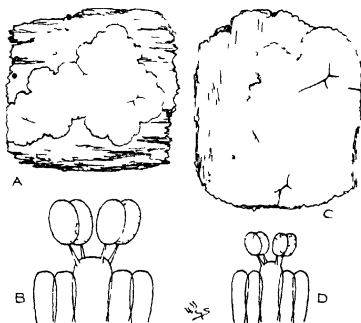


Fig 102 —A *Coniophora olivacea* Karst, one half natural size B basidium
and spores of ditto $\times 500$ C, *C ochracea* Mass, one half natural size
D basidium and spores of ditto $\times 500$

spores, without setæ *Basidia* tetrasporous *Spores* smooth, pale
brownish or pale dull ochreous (Fig 102)

Growing in broadly expanded patches on dead wood or bark

Species 1883—1898

Spores large

1883—1893

Spores small

1894—1896

Substance soft, subgelatinous

1897, 1898

1883 C olivacea Karst (from the olivaceous colour) *a b c*

Membranous, broadly effused, orbicular or elongate *Hym* dull

- olive, sparkling with oxalate of lime crystals when fresh, marg
 . fimbriate, whitish *Spores* pale dull ochre
 Trunks and wood, pine, uncommon Oct-Nov 5½ in
- 1884. C pulverulenta** Sacc (from the pulverulent hymenium) *a*
 Effused, dry, cracking *Hym* brown, ferruginous- or yellowish-
 brown, clouded and mottled darker marg membranous, white
 or pale yellowish-brown *Spores* pale dull yellow
 Wood 7 in Has been considered a form of **1680**, var *pul-erulentus*
- 1885 C puteana** Karst (from its often growing in cellars, humid
 greenhouses, etc, *putanum*, a well) *a c*
 Broadly effused, fleshy, fragile, somewhat thick, compact, almost
 waxy, usually with open spaces exposing the matrix, sometimes
 cracked and showing the fibrillose substratum *Hym* sub-
 undulate, pallid, yellowish or buff to olivaceous-brown or
 brown-sienna, marg mucedinous, white, sometimes indefinite
Spores tawny olive
 Bark and wood, cypress, dead wood, rotten trunks running over dead leaves,
 damp walls in cellars, greenhouses etc frequent Oct-Nov 5½ in
- 1886 C cinnamomea** Mass (from the cinnamon colour) *a b c*
 Effused, confluent, irregular, fleshy, soft somewhat thick, crack-
 ing and exhibiting the fibrilloso-strigose Sub *Hym* pale
 cinnamon to dark rich sienna-umber or chocolate, spotted or
 mottled darker *Spores* pale dull yellow or very pale cinnamon
 Wood, bark, plum, hazel, hornbeam, birch, oak rare Nov 4 in
- 1887 C umbrina** Karst (from the brown colour, *umber*) *a b c*
 Effused, confluent, fleshy-soft, somewhat thick Sub villous
Hym tuberculose then collapsing, varying pale to dark brown
 or sooty- or yellowish-umber often slightly olive marg shortly
 fimbriate *Spores* pale, dull brown
 Dead wood, branches, sticks, etc Sometimes on the ground Feb 6 in
 Not easily separating from the matrix Surface sometimes rugoso
 papillose all over
- 1888 C incrustans** Mass (from the incrusting habit) *a b*
 Effused, thin, indeterminate, almost waxy when perfectly
 developed *Hym* waxy-pulverulent, pallid to pale yellowish
Spores pale yellow
 Enveloping leaves, twigs, etc, with a film 6 in Thinner and less nodulose
 than **1898**
- 1889 C arida** Karst (from its dry substance *aridus*, dry) *a b c*
 Effused, membranous, adnato-agglutinate, continuous, cracking
Hym even to slightly tuberculose, sulphur-yellow, becoming
 ferruginous-umber, clouded, marg broadly radiato-byssoid,
 sometimes pulverulent, sulphur-white, sometimes zoned ochre
 and sulphur near marg *Spores* pale dull yellow
 Logs, woods, cellars, pine, fir, juniper, common Oct-Feb 7 in
- 1890 C sulphurea** Mass (from the sulphur colour) *a b c*
 Effused, fibrilloso-flaxy, somewhat thick, when perfect thick and
 waxy-soft, cracking, often imperfect and spongy, passing into

radiate, cord-like, branching sulphur-coloured strands *Hym* minutely papilloso-rugose or granulose, bright sulphur-yellow, or clouded and mottled sulphur and orange on an ivory ground, fading to yellow-umber, sometimes rich sienna-orange with a pale somewhat byssoid sulphur marg *Spores* olive

Dead wood, bark, twigs, leaves, stipules, etc, pine, oak, beech, sometimes on earth Oct-Jan $5\frac{1}{2}$ in Var *ochroidea* Mass *Hym* ochreous with a cream or sulphur margin *Spores* larger than type, probably specifically distinct

- 1891 C subdealbata** Mass (from the whitish colour, *sub*, somewhat, *dealbatus*, whitened) *a b*

Broadly effused, thin, determinate, cracking *Hym* shining-white, thickly powdered, pallid fawn, or pale ochreous-whitish, mottled brownish-ochre or shaded olive, often with paler barren patches *Spores* ochreous or pale dull yellow

Bark pine Dec $4\frac{3}{4}$ in

- 1892 C stabularis** Karst (from its being first recorded from an ox-stall, *stabulum*, a stall) *a c*

Effused, flaxy when young, fleshy-soft *Hym* tubercular, tubercles collapsing, white, whitish-yellow, pale yellowish-brown or vinous fuscous, white-pruinose, marg definite flaxy or pulverulent, white

Odour fœtid from its habitat Squared wood, fir $4\frac{1}{4}$ in

- 1893 C Berkeleyi** Mass (after the Rev M J Berkeley) *a b c*

Effused thick, cracked, marg determinate, sometimes minutely byssoid *Hym* vinous-brown, somewhat yellowish, somewhat paler at the pallid marg *Spores* tiny

Bark, decorticated wood 4 in Superficially resembles 1850

- 1894 C Cookei** Mass (after Dr M C Cooke) *a*

Effused, fibrilloso-membranous *Hym* ferruginous-olive or yellowish-brown, clouded darker, marg byssoid, pallid *Spores* pale dull yellow

Rotting wood $4\frac{1}{2}$ in

- 1895 C ochracea** Mass (from the ochreous colour) *a b*

Broadly effused, submembranous, indeterminate, cracking *Hym* with a woolly appearance, subpapillose, sulphur-white to ochre, salmon-white when dry, or pale vinous-brown with a yellowish tinge, marg broad, pulverulent, pale yellowish *Spores* yellowish or pale dull yellow

Wood, bark, elm July 5 in Resembles a thin form of 1890 Must not be confounded with 1874 or the var *ochroidea* of 1890

- 1896 C membranacea** DC (from the somewhat membranous substance) *a*

Somewhat orbicular or effused, fragile, cracking and peeling off the host *Hym* dull ferruginous or opaque-yellowish, sienna-umber, mid somewhat dark, constantly paler at the fibrillose marg *Spores* ochre

Forming patches a foot or more in diam on walls, wood, paper, etc $9\frac{1}{2}$ in

1897 *C. gelatinosa* W G Sm, *Aldridgea gelatinosa* Mass (from its gelatinous substance) *a*

Broadly effused, fleshy, subgelatinous, sometimes $\frac{1}{8}$ in thick, becoming collapsed and rigid *H₃m* pallid becoming purple-brown, marg determinate *Spores* olive

Sawdust, extending for several inches, the irregularities of the hymenium due to the substratum 5 in

1898 *C. byssoidea* Karst (from its, at first, flaxy condition, Gr *bysos*, fine flax, *eidos*, appearance) *a c*

Irregularly effused, at first grey, then compact, mid fleshy *H₃m* light to ferruginous yellow, or colour of coffee and milk, marg narrow, somewhat arachnoid or flaxy, whitish

Forming a biscuit coloured film sometimes a foot broad on fir leaves, moss, earth, etc, frequent $4\frac{1}{2}$ in

LXXXVIII EXOBASIDIUM Woron

(From the habit, the spores growing from basidia only with no true sporophore, *ex*, out of)

Entophytes parasitic on living leaves and stems, which they deform and hypertrophy *Basidia* crowded, cylindrico-clavate,

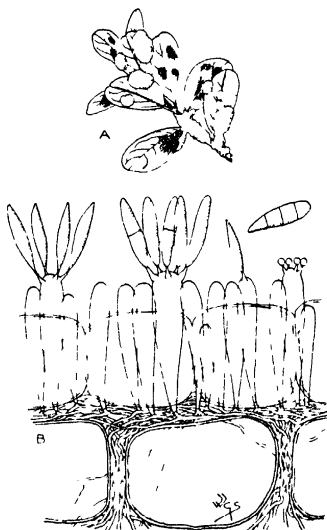


Fig 203 —A, *Exobasidium Vaccinii* Woron one half natural size B, section through hymenium of ditto, showing basidia and spores, X 500

normally tetrasporous, but spores sometimes varying in number from one to five. The hymenial cells are borne on vegetative hyphæ which grow in the cellular tissue of the host and form a loose stratum on its external surface. Spores ovate to elongate-oval, continuous, rarely becoming septate, colourless (Fig 103)

Most nearly allied to *Corticium*, but differing in the absence of a sporophore or subiculum and in being parasitic. *Exoascus*, an Ascomycetous fungus, sometimes grows in company with *Exobasidium*.

Species 1899, 1900

1899 *E. Vaccinii* Woron (from its growth on *Vaccinium* and its allies) *a b c*

Innate, effused, usually orbicular or elongate, often confluent. Hym on under surface of leaves and round stems, pale rose, covered with a white bloom.

June-Aug $\frac{1}{2}$ in. Red or purple patches occur on the upper surface of the leaves, opposite to the portion occupied by the fungus below.

1900 *E. Rhododendri* Cramer (from its growth on *Rhododendron*) *a c*
Forming gall like bullate excrescences, at first pale, then reddish and shining on stems, petioles and under surface of leaves.

On *Rhododendron ferrugineum*, *R. hirsutum*, *R. Wilsoni*. July 1 in. Insects, mites, etc. are often found in the gall like swellings of *Exobasidium*.

LXXXIX CYPHELLA Fr

(From the usual shape, like a small goblet, Gr *kuphos*.)

Usually small, sometimes almost minute, somewhat membranous, cup-shaped, rarely plane, adnate from a central or oblique point, sometimes with a stem and pendulous Hymenium within the cup or disc. Basidia tetrasporous, rarely bisporous. Spores subovate (Fig 104)

Closely allied to *Solma*. *C. perpusilla* is intermediate. Owing to the strong external resemblance in many *Cyphella* to certain small species of *Peziza*, a genus of Ascomycetous fungi, it is necessary to examine microscopically the hymenium of some of the species for the decisive characters of basidia or asci. *C. fragma* Lib is British, but it is an Ascomycete.

Species 1901—1922

Stipitate

1901—1905

Sessile or subsessile

Spores hyaline

1906—1918

Spores coloured

1919—1922

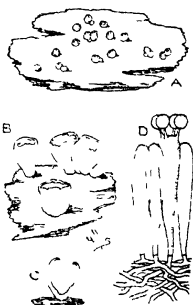


Fig 104—A, *Cyphella brunnea* Phill X 2 B, ditto with C, section X 10 D basidium and spores, X 500

- 1901. C Pimii** Phill (after Greenwood Pim, mycologist) *a b*
 Fasciculate, cyathiform, erect or pendent, membranous, soft, fragile, pubescent, white or pale yellow *Stem* somewhat slender, crooked, enlarged upwards, marg somewhat incised
 Dead herbaceous stems in water, nettle, butter-bur Feb $\frac{1}{8} \times \frac{1}{8}$ in
- 1902. C capula** Fr (from its resemblance to a small bowl, *capula*) *a b c*
 Membranous, obliquely campanulate, smooth, marg sinuate, irregular *Hym* even, whitish to yellowish, rarely greyish, brownish, or wholly white
 Dead herbaceous stems, twigs branches, nettles, fennel, moss, strawberry, comfrey, frequent Oct-Aug $\frac{1}{4}$ in
- 1903 C cernua** Mass (from the habit, bending downwards, *cernuus*, nodding) *a*
 Thin, obliquely campanulate, glabrous, stem elongate, equal, clear primrose yellow, yellowish-white, somewhat sulphur or very pale yellow
 Bark, elder $\frac{1}{4}$ in Perhaps the same as 1902, but Massee considers it distinct in its more erect habit and larger spores
- 1904. C cuticulosa** Fr ex Berk (from the membranous substance, *cuticula*, the outer skin) *a b*
 Membranous, at first oblong, then cup-shaped, smooth externally, diaphanous white
 Dead grass stems, rare Feb $\frac{1}{2}$ - $\frac{1}{4}$ in
- 1905 C lacera** Fr (from the cleft margin, *lacerus*, torn) *a b c*
 Membranous, cup-shaped, vertical or pendulous, torn into clefts, slightly striate and black fibrillous above *Hym* slightly wrinkled and whitish, grey externally
 Dead twigs $\frac{1}{4} \times \frac{1}{4}$ in
- 1906 C galeata** Fr (from its resemblance to a metal skull-cap or helmet, *galea*, a helmet) *a c*
 Membranous soft, subsessile, even marg entire, then torn
Hym slightly wrinkled, white to grey-white or pale rose-brown
 Mosses, uncommon Dec $\frac{1}{4}$ $\frac{1}{2}$ in
- 1907 C Goldbachii** Weinm (after Carl Ludwig Goldbach) *a b c*
 Membranous, cup-shaped, sessile, lobed or cleft, externally villous *Hym* even, pallid, white, ivory, or white-ochre
 Dead leaves of *Aira caespitosa*, *Carex paniculata* Feb $\frac{1}{8} \times \frac{1}{2}$ in
- 1908. C muscigena** Fr (from its habit, borne on mosses, *muscus*, moss, *gigno*, to bear) *a b c*
 Membranous soft, becoming plane, subdimidiate, externally silky under a lens *Hym* slightly wrinkled, shining-white, becoming pale brown
 Various mosses, uncommon Sept-Jan $\frac{3}{8}$ in Varied in form, fan shaped, spathulate, etc Sometimes stipitate, sometimes $\frac{3}{4}$ in across
 This is *Cantharellus laevis* Fr

- 1909 C catilla** W G Sm (from its shape, like a small bowl, *catillus*) *a*
 Submembranous, expanded, marg crisped, undulate *Hym*
 veined, pale grey or faint claret-brown
 Often imbricate Moss and dead leaves Nov $\frac{3}{4}$ in Closely allied to **1908**
- 1909a C griseopallida** Weinm (from the pallid grey colour, *griseus*, grey) *a*
 Somewhat membranous, globose, then campanulate, sessile,
 floccose externally *Hym* even, smooth
 Elm, elder, honeysuckle, lime, pine Dec $\frac{1}{16}$ in A supposed variety of
 this, found on dead *Carex paniculata* and described by Berkeley, is **1916**
- 1910 C fulva** Berk & Rav (from the tawny colour, *fulvus*, tawny)
a b c
 Membranous, cup-shaped, deflexed, externally hispid-tomentose,
 rich tawny-brown
 Dead bark, alder, elm Jan $\frac{1}{2}$ in
- 1911 C brunnea** Phill (from the brown colour *brunneus*, brown) *a b*
 Subgelatinous sessile cupulate, grey-white-pruinose at the
 incurved lacerate marg, dull brown or somewhat vinous umber,
 mouth oblique, base very dark *Hym* smooth, discoloured
 brown
 Wood and bark, old elder trees $\frac{1}{4}$ in
- 1912 C stuppea** B & Br (from the coarsely hispid coat, as if clad
 with tow *stuppeus*, made of tow) *a*
 Eruptent, sessile, cupulate, brownish, becoming white *Hym*
 fuscous
 Broom Mar $\frac{1}{4}$ in
- 1913 C alboviolascens** Karst (from the pallid violet hymenium,
albus, white) *a b c*
 Cupulate, sessile or nearly so, densely villous, white *Hym*
 even, pallid, tinged with violet
 Gregarious, often proliferous Wood, bark, twigs, burdock, nettle, thistle,
 holly, broom, lilac, sloe, oak, rose, poplar, ferns, chips Oct-June
 $\frac{1}{2}$ in
- 1914 C villosa** Karst (from the villose coating) *a b c*
 Sessile, spherical with a contracted mouth, whitish
 Stems, leaves, branches, potato, vine, elder, burdock, sow thistle, butter bur,
 dog wood, fennel, strawberry, *Lathyrus pratensis*, *Chenopodium* Oct-June
 $\frac{1}{4}$ - $\frac{1}{2}$ in This and **1913** are much alike, both very white villous externally,
 with hymenium often wholly hidden Distinguished by the colour of the
 hymenium
- 1915 C dochmiospora** B & Br (from the oblique spores, *Gr*
dochmos, oblique)
 Minute, cupulate, villous, mouth subconnivent, white
 Twigs, stems of herbaceous plants, etc Oct $\frac{1}{2}$ - $\frac{1}{8}$ in

1916 C Berkeleyi Mass (after the Rev M J Berkeley) *a*

Sessile, globose, then expanded, at length campanulate, minutely pilose, reddish-grey as is the even hymenium

Dead *Carex paniculata* Jan $\frac{1}{2}$ – $\frac{1}{4}$ in Berkeley considered this to be a form of 1909a Massee has made it a species, owing to a difference in size of the spores and the different habitat

1917 C Bloxamii Berk & Phill (after the Rev A Bloxam) *a b*

Floccoso-membranous, crenato-lobed, white villous externally
Hym white, then pale yellow

Furze Mar–April Minute to $\frac{1}{8}$ in

1917a C cyclas Cooke & Phill (from the shape, like the bivalve shell, *Cyclas*) *a b*

Conchiform, dimidiate, attached on one side, pendulous, clad with flexuous hairs, whitish *Hym* smooth, very pale rose-colour

Dead wood $\frac{1}{2}$ in

1918 C pallida B & Br (from the pallid colour) *a b c*

Sessile, at first orbicular, then irregularly lobed, plane, densely tomentose to slightly hispid *Hym* at length wrinkled, pallid ochreous

Old stems of *Clematis vitalba* Nov–April $\frac{1}{2}$ to $\frac{1}{4}$ in

1919 C fraxinicola B & Br (from its habitat, bark of ash, *Fraxinus*, *colo*, to inhabit) *a b c*

Orbicular, shortly villous, white *Hym* light yellow, becoming fuscous *Spores* pale olive

Proliferous Dec–Feb Minute to $\frac{1}{8}$ in

1920 C muscicola Fr (from its growing on mosses, *muscus*, moss, *colo*, to inhabit) *a b*

Membranous, subsessile, cupulate, nodding, externally slightly fibriloso-striate, marg slightly downy, repand, torn *Hym* even, whitish, rarely cinereous

Mosses, rare Dec–Mar $\frac{1}{4}$ in

1921 C ochroleuca B & Br (from the yellow-white colour *Gr ochros*, pale yellow, *leukos*, white) *a b*

Membranous, cupulate, villous above, marg at length split
Hym even, pale ochre, brighter than exterior

Sticks, bramble, rare July–Oct $\frac{1}{8}$ in barely stipitate

1922. C fuscospora Curr ex Cooke (from the colour of the spores, *fuscus*, dusky)

Sessile, white tomentose, marg connivent *Hym* becoming yellow *Spores* subglobose, punctulate

Bark $\frac{1}{4}$ – $\frac{1}{2}$ mm

XC SOLENIA Hoffm

(From the short pipe-like shape, Gr *solen*, a pipe)

Cylindrical, more or less contracted at the mouth, the external hairs in some species rough with particles of oxalate of lime, cavity covered with the hymenium. *Basidia* tetrasporous (Fig 105)

The species are all minute, rarely exceeding $\frac{1}{12}$ in height. They grow, usually in crowded masses, on rotten wood. They are closely allied to *Cyphella*, but are distinguished by the densely crowded habit and by the cylinders never expanding.

Fries has placed this genus in the *Polyporaceæ*, but each cylinder in *Solenia* is a distinct *Peziza*-like plant and not comparable with a mere tube of one of the *Polyporaceæ*. To be allied to the *Polyporaceæ* each cylinder should be lined with minute basidia-bearing tubes.

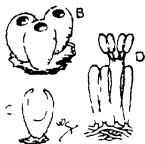
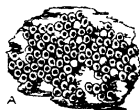


FIG 105 —A *Solenia anomala* Fr. $\times 5$ B ditto with C section, $\times 20$ D, basidium and spores $\times 500$

Species 1923—1925

Externally white

1923, 1924

Externally ochreous

1925

1923 *S maxima* Mass (from the comparatively large size of the spores *maximus* largest) *a*

Gregarious or subfasciculate, not crowded, subcylindrical, slightly contracted at base, externally villous with slender aseptate hyphae rough with minute particles of oxalate of lime, whitish or pale buff, ochreous when dry.

Forming patches $\frac{1}{2} \times \frac{1}{4}$ in. May $\frac{1}{2} \times \frac{1}{4}$ in. Spores $5 \times 3 \mu$. This is 1925, var *cinnerea* Cooke.

1924 *S fasciculata* Pers (from its growing in groups or fascicles) *a b c*

Gregarious, usually fasciculate, cylindrico-clavate, externally minutely silky and almost smooth, sometimes faintly shaded, brownish-yellow.

Willow, pine. Nov—April $\frac{1}{4} \times \frac{1}{4}$ in. Spores 4μ .

1925 *S anomala* Fr (from its superficially anomalous or perhaps scattered character) *a b c*

Usually densely crowded, pyriform, forming effused scattered patches, margin incurved, pilose externally, varying from dull ochreous to ferruginous.

Birch, willow, vine oak, beech, dog wood. Aug—May $\frac{1}{4} \times \frac{1}{4}$ in. Spores $7 \times 4 \mu$. Var *cinnerea* Mass. is somewhat smaller in size than type.

FAM V CLAVARIACEÆ

Hymenium not distinct from the hymenophore Amphigenous somewhat fleshy fungi, vertical, branched or simple, never coriaceous or incrusting The branched species of *Clavaria* must not be confounded with certain coriaceous species of *Thelphora*

Species 1926—2000

KEY TO THE GENERA

Branched, sponge like	Branches compressed, flat or leaf-like	91 SPARASSIS
Branched to simple		
Terete		
Stem not distinct from club		92 CLAVARIA
Stem distinct from club, not usually springing from a sclerotium		96 PISILLARIA
Usually springing from a sclerotium		95 TYPHULA
Gelatinoso cartilaginous, viscid		93 CATOCERA
Hair like		94 PTERULA

XCI SPARASSIS Fr

(From its appearance as if torn to pieces Gr *sparasso*, to tear to pieces)

Fleshy, with flat leaf-like branches, composed of two plates, fertile on both sides Basidia tetrasporous Spores continuous, hyaline (Fig 106) Species 1926, 1926a

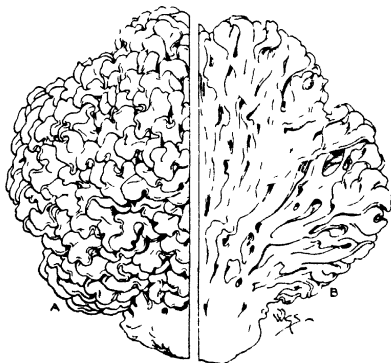


Fig 106 —A, B *Sparassis crispa* Fr, entire and in section
One half natural size

1926 *S. crispa* Fr (from its crisped or curled appearance) a b c
Whitish to pale yellowish Very much branched, branches

recurved, intricate at apex, the whole forming a large sponge-like mass, stemless or with a short stout stem

Edible Odour very sweet of anise Beside fir trees and stumps, on dead fir leaves, terrestrial on heaths Aug-Nov 1 ft 1 in \times 1 ft 1 in Sometimes attaining a diameter of 18 in and a weight of 2 or 3 lbs

1926a S laminosa Fr (from the leaf-like plates or layers of the entire plant *lamina*, a thin leaf) *a*

Very much branched, branches laminar, spreading, yellowish straw-colour

Woods Sept $10\frac{1}{2} \times 7\frac{1}{2}$ in Stronger smelling and softer than **1926**, never fimbriate at edges, lamina large, loose

XCII CLAVARIA L

(From the club-like shape of some typical species *clava*, a club)

Fleshy, erect, branched or simple, branches somewhat round, with or without a distinct stem *Hymenium* continuous, dry, even, homogeneous *Basidia* tetrasporous

Spores coloured or uncoloured

For the most part terrestrial (Fig 107) Species 1927—1975

RAMARIÆ Branched branches attenuate upwards

a Lutespora Spores white or nearly white

Red, yellow or violet

1927—1933

White or grey 1934—1942

b Ochrospora Spores pale yellow, ochreous or cinnamon

Yellow, pinkish yellow or dull ochreous 1943—1949

Whitish, grey or violet

1950, 1951

Growing on wood

1952, 1953

SYNCORYNÆ Clubs almost simple, tufted at the base

Reddish 1954—1956

Yellowish or white

1957—1963

Smoky or blackish

1964

HOLOCORYNÆ Clubs entire or simple or nearly so, distinct at the base

Whitish

1965—1967

Yellow or pallid, becoming darker

1968—1973

Brownish or flesh-colour

1974, 1975

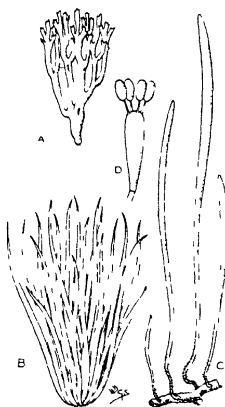


Fig 107 —A, *Clavaria coralloides* L
B *C. arbutus* Fr C *C. pistulosa* L
Holm-k one third natural size D *C. pistulosa* L basidium and spores $\times 330$

There are analogous species in both sections of *Ramaria* which resemble each other in form and colour, but the *Leucosporæ* are somewhat brittle-soft and several of the species are considered edible, whilst the *Ochrosporæ* are spongy-tough and mostly bitter and unfit for food. The spore-colour, the taste and the substance, whether soft or tough, are salient characters.

RAMARIÆ

a Leucospora

- 1927 C flava** Schæff (from the frequent light yellow colour, *flavus*, light yellow) *a c*
 Very much branched, branches cylindrical, vertical, even, obtuse, yellow. Trunk thick, fleshy, white.
 Edible. Woods, pine $6\frac{1}{2} \times 5\frac{3}{4}$ in. Fragile. Must not be confounded with 1943.
- 1928 C botrytis** Pers (from the deep vinous purple colour of the ultimate branchlets. Gr *botrus*, a cluster of grapes) *a b c*
 Wholly white, buff salmon yellow, brownish etc. sometimes more or less claret-colour. Much branched. branches swollen, unequal, somewhat wrinkled rose or brown-crimson at the apices. Trunk thick, unequal.
 Odour very pleasant. Woods, mixed pine, beech. uncommon. Aug-Nov $5 \times 5\frac{1}{4}$ in.
- 1929 C amethystina** Pers (from the amethyst colour) *a c*
 Very much branched. branches round even, obtuse equal, purple, bright purple with a bluish shade or purple-lavender. Said to produce violent colic.
 Grassy woods and pastures. uncommon. Aug-Oct $2 \times 2\frac{1}{2}$ in. Myc lavender whitish or pale cobalt.
- 1930 C fastigiata** L (from the parallel clustered and erect branches in some cases the branches decrease in height outwardly, giving a sloping, obconic or gable-shape to the plant *fastigium*, a slope a gable) *a b c*
 Very much branched, branches short, divaricate, slightly tough, brittle towards base, egg-yellow, apices light yellow to fuscous.
 Usually caespitose. Slightly fragrant. Pastures, very common. Aug-Mar $1\frac{1}{2} \times 2\frac{3}{4}$ in.
- 1931 C muscoides** L (from a fancied resemblance to a tuft of moss, *muscus*, moss, Gr *cidos*, appearance) *a b c*
 Twice or thrice forked, becoming slender, branchlets crescent-shaped, acute, slightly tough, base tomentose, yellow.
 Solitary. Pastures, frequent. Aug-Oct $3 \times 3\frac{1}{2}$ in.
- 1932 C kewensis** Mass (from its first observed place of growth, Royal Gardens, Kew) *a*
 Branches numerous, repeatedly and dichotomously divided, axils rounded, trunk very short, dull ochreous.
 Odour strong, spicy, resembling 168 or 1437. Rotten stumps, under holly. April $1\frac{1}{8} \times 2\frac{1}{4}$ in.

1938 C curta Fr (from its short stature, *curtus*, short) *a b*

Very much branched, adpressed, branches short, crowded, obtuse, stem none, but there is usually a fleshy base, greenish-yellow

On the ground, on fir leaves Oct $\frac{1}{2}$ to $\frac{3}{4}$ in

1934 C coralloides L (from its appearance, like white coral, *Gr uidos*, appearance) *a b c*

Branches unequal, dilated upwards, branchlets crowded, acute, trunk somewhat thick, repeatedly and irregularly much branched, base not downy, somewhat fragile, hollow within

Commonly caespitose Edible sold for food in markets of Italy Shady woods, rare Oct-Nov $5\frac{1}{4} \times 5\frac{3}{8}$ in Sometimes faintly shaded buff

1935 C cinerea Pers (from its ashy colour, *cinis*, ashes) *a b c*

Branches and branchlets thickened, irregularly shaped, somewhat wrinkled, subobtuse trunk somewhat thick, short, very much branched, fragile, stuffed

Woods, mixed, fir, frequent Aug-Nov $5\frac{1}{2} \times 4\frac{1}{2}$ in

1936 C umbrina Berk (from the colour, usually pale brown, *umbrinus*) *a*

Slightly branched, branches and branchlets cylindrical, obtuse, forked, pale amber to salmon-yellowish

Woods, lawns, etc July-Oct $2\frac{1}{2}$ in

1937 C cristata Pers (from the crested apices of the branchlets, *crista*, a crest) *a b c*

Branches dilated above, acutely incised, crested, tough, even, stuffed, white, crests at length becoming pale buff

Somewhat caespitose Woods, mixed, pine, frequent June-Nov $3\frac{1}{2} \times 3\frac{1}{2}$ in

1937a C gigaspora Cotton (from the large spores *Gr gas*, a giant) *a*

Irregularly branched, branches sometimes palmate, erect, terete or compressed, much compressed at the acute axils, ultimate branches attenuate, apices blunt, greyish with a shade of yellow

Cespitose, but distinct at the base, or solitary Amongst moss on rocky heathy slopes Nov $1\frac{1}{2} \times \frac{1}{2}$

1938 C rugosa Bull (from the wrinkled stem, *ruga* a wrinkle) *a b c*

Sparingly branched to simple, thickened upwards, irregularly shaped, tough, white

Edible Woods, beech, pastures, very common Aug-Dec 5 in
Var *macrospora* W G Sm, *C macrospora* Britz Spores longer and somewhat larger than type Type $7-10\mu$ Var $8-10 \times 12-14\mu$

1939 C Krombholzii Fr (after Julius Vicenz von Krombholz) *a b c*

Slightly branched, even, branches somewhat compressed, obtuse, not wrinkled, fragile, white

Cespitose Old pastures Sept $2\frac{3}{4}$ in

1940 C crassa Britz (from the thickness of the clubs, *crassus*, thick) *a*

Much branched, branches obtuse, club-shaped, compressed
Base attenuate downwards, violet

Solitary Not unlike **1938** and **1939** in habit, but differing in colour and in the attenuate base 3 in

1941 C Kunzei Fr (after Karl Sebastian Heinrich Kunze) *a b c*

Very much branched from the thin caespitose base, branches elongate, crowded, repeatedly forked, fastigiate, even equal, axils compressed somewhat fragile, white

Woods, rare Aug-Sept 2½ in

1941a C subtilis Pers (from its small and slender habit *subtilis*, fine, slender) *a*

Tough, thin, glabrous at base, of equal thickness throughout, branches few, dichotomously forked and somewhat fastigiate, white becoming yellowish

Amongst grass Sept 1½ in

1942 C pyxidata Pers (from the shape of the palmate ends of the branchlets in typical examples, like a small box *pyxis*) *a c*

Trunk thin, smooth, branched in an umbellate manner in typical examples pallid to tan, somewhat rufescent, varying ivory and sulphur-white branchlets taking a cup-like shape at the cuspo-radiate apices

On the ground, on sticks pine 2½ in This has a tendency to form primary and secondary umbels, the latter with from 5 to 9 rays when the branchlets are short the apices have a fancied resemblance to little boxes

b Ochrospora

1943 C aurea Schæff (from the golden colour *aurum* gold) *a b c*

Trunk thick, elastic, soft, divided into stout tense straight very dichotomous round obtuse somewhat toothed branches, buff, pale yellow, pale reddish, or pale salmon Fleshy stem sometimes absent

Woods, mixed fir, beech Aug-Oct 5 × 5½ in Must not be confounded with **1927**

1944. C rufescens Schæff (from the red apices of the branchlets, *rufesco*, to become red) *a b c*

Trunk thick, elastic, tan or pale salmon much branched, branches multifid, crowded, somewhat fastigiate even, tan, pale salmon or pale vermilion, with red, crimson or vermilion apices

On wood Sept 4½ × 4 in

1945. C formosa Pers (from its beauty, *formosus*, beautiful) *a b c*

Trunk thick, elastic, ivory, pale buff or pale olive-brown, darker below, much elongato-branched, branchlets obtuse, luminous

yellow, salmon or salmon-buff, apices sometimes orange or sulphur

Odour pleasant Downs, commons, woods, pine, rare July-Oct
 $4\frac{1}{2} \times 6$ in

- 1946 **C spinulosa** Pers (from the attenuate spine-like branchlets, *spinulosus*, spined) *a b c*

Trunk short, somewhat thick, pale yellow, branches crowded, tense, straight, attenuato-pointed, yellow-orange, dull yellow or warm brown

Woods, fir, beech, mixed Sept 5×6 in

- 1947 **C abietina** Pers (from the habitat, under fir, *abies*) *a b c*

Trunk short, somewhat thick, very much branched, branches crowded, branchlets tense, straight, acute, olive-ochre or olive-sienna-ochreous, becoming green where touched

Taste bitter Under fir, larch, common Aug-Dec 3×3 in

- 1948 **C flaccida** Fr (from its flaccid habit) *a b c*

Stem thin, very short, very much branched, branches crowded, even, unequal, acute, flaccid, often drooping, ochreous or buff

Amongst leaves and moss in woods, pine, rare Oct $3 \times 2\frac{1}{2}$ in

- 1949 **C crocea** Pers (from the saffron colour, *croceus*, saffron) *a b*

Minute, thin, stem naked, pallid or yellow, branches and branchlets orange-scarlet

Downs, gardens, on peat Sept-Feb $\frac{3}{4} \times \frac{1}{2}$ in The general appearance is not that of a true Basidiomycete, it has somewhat the appearance of a slender minute branched *Calocera*

- 1950 **C grisea** Pers (from the grey colour, *griseus*, grey) *a b c*

Trunk somewhat thick, firm, often rooting, whitish branches and branchlets attenuate, somewhat wrinkled, fuliginous-cinereous

Woods, rare Sept-Oct 4×5 in Sometimes confounded with 1935, in which the spores are white

- 1951 **C condensata** Fr (from the closely adpressed branchlets, *condenso*, to press close together) *a*

Tufts very dense, usually without a trunk, very much branched from the base, smooth, tan-rufescent or salmon, branches tense and straight, crowded, even, fastigate, twice or thrice-toothed, yellow

On the ground, under trees $3\frac{1}{2} \times 4$ in

- 1952 **C stricta** Pers (from the tense, straight habit, *stringo*, to draw tight) *a b c*

Trunk short, thin, very much branched, branches and branchlets tense and straight, even, crowded, adpressed, somewhat acute, pallid yellowish or whitish-yellow to buff-tan, fuscous where bruised

Woods, pine, on and about stumps, sawdust, uncommon Aug-Nov
 $4\frac{1}{2} \times 3\frac{1}{2}$ in Often springing from cord like mycelium

- 1953. C crispula** Fr (from the slightly curled branchlets, *crispulus*, slightly curled) *a b c*

Trunk very thin or obsolete, very much branched, branches flexuous, multifid, branchlets divaricate, tan to ochreous, buff or ochre, almost white below

Base of trees, ash, elder, rare Oct-Dec $3\frac{1}{2} \times 2\frac{3}{4}$ in

SANCTORINÆ

- 1954. C purpurea** Mull (from the colour, *purpureus*, purple) *a c*

Cl elongate, hollow, then compressed, acute, fragile, opaque, claret-brown and slightly purplish to purple

Cæspitose Under pine, rare Aug-Oct $3\frac{1}{2}$ in

- 1955. C rufa** Pers (from the reddish colour *rufus*, red) *a c*

Cl stuffed, thickened, fusiform, sometimes bifid, rarely trifid, pale warm brown, rarely bright red or orange-vermilion, apices darker with age

Cæspitose Odour somewhat strong Sept $2\frac{1}{2}$ in

- 1956. C rosea** Dalman (from the rose colour) *a b c*

Cl stuffed, fragile, pale to claret-pink or full rose-colour, apices attenuate or rounded, becoming yellowish with age

Somewhat fasciculate Pastures, amongst moss, rare $2\frac{1}{2}$ in

- 1957. C fusiformis** Sow (from the fusiform clubs) *a b c*

Cl somewhat fusiform, apex acute sometimes bifid trifid or toothed, firm, soon hollow, bright yellow, apices fuscous
Spores even

Cæspitose conical Amongst grass, woods, pastures, etc common Sept-Nov 5 in Sometimes intensely bitter Often confounded with **1958** and **1959** Var *cecanoides* W G Sm, *Clavaria cecanoides* Pers unequal, divided above, branched, upper part often antler like

- 1957a. C luteoalba** Rea (from colour of the club, yellow below, white above *luteus*, yellow, *albus*, white) *a*

Cl simple, stuffed, attenuate to base, apex acute to blunt, deep rich yellow, apex constantly white

Fasciculate or scattered Amongst grass and bracken Sept-Oct $2\frac{1}{2}$ in

- 1958. C dissipabilis** Britz (from the scattered habit *dissipabilis*, dissipated, scattered) *a*

Cl elongato-clavate, apex rounded, rarely subacute, round or compressed and channelled, solid, collapsing, fragile, even, glabrous, deep orange yellow *Spores* spinulose

Solitary or in small clusters Short grass in pastures, roads, woods, common Oct $2\frac{3}{4}$ in Often confounded with **1957** and **1959**

- 1959. C inæqualis** Mull (from the clubs being often unequal in diameter and more or less unevenly compressed, *inæqualis*, unequal) *a b c*

Cl variable, usually simple and rounded above, narrow or

inflated, fragile, stuffed, rarely bifid, yellow, usually paler than 1957 and 1958 *Spores* even .

Somewhat fasciculate or gregarious Amongst grass, woods, pastures, very common Aug -Nov 4½ in Often confounded with 1957 and 1958

1960 C argillacea Pers (from the colour of clay, *argilla*) *a b c*

Cl usually simple, variable, sometimes short and obese, rarely with short rounded obtuse branchlets, apex rounded, sometimes in hammer-form, whitish-yellow to brownish-buff or buff-ivory, rarely sulphur, base yellowish

Usually fasciculate Woods, amongst moss, under firs Aug -Nov 4½ in

1961 C vermicularis Fr (from a fancied worm-like shape, *vermis*, a worm) *a b*

Cl stuffed, cylindrical, flexuous, acutely pointed, fragile, white, apices at length somewhat yellowish, base often faintly brownish

Cæspitose Amongst grass, pastures, roadsides, very common May-Oct 4½ in

1962 C fragilis Holmsk (from its brittleness, *fragilis*, fragile) *a b c*

Cl soon hollow, obtuse and rounded above, rarely forked, white, sometimes ivory, yellowish or pale brownish, white below

Fasciculate Pastures, roadsides, common Aug -Nov 3 in

1962a C Micheli Rea (after Piero Antonio Micheli) *a*

Cl thin, cylindrical, hollow, apex acute, very fragile yellow, white at the base

Fasciculate On the ground under trees, cherry Sept This plant should not have been named *Micheli*, as Micheli's plant, *Nova Plant Genera*, t 87, figs 6, 10, is stout, obtuse and white According to Fries this is *C fragilis*

1963 C striata Pers (from the striate clubs) *a*

Cl elongate, compressed, somewhat tortuoso-flexuous, somewhat longitudinally striate, subfuliginous or pale dull to dark brown

Cæspitose Woods, amongst grass, rare Sept 3½ in

1964 C fumosa Pers (from the smoky colour, *fumus*, smoke) *a b*

Cl even, usually tense and straight, somewhat compressed, fistulose, fragile, apices rounded or acute, fuliginous or yellowish dull umber

Fasciculate Pastures, uncommon Aug -Sept 4½ in

HOLOCORYNÆ

1965 C canaliculata Fr (from the small longitudinal channels on the clubs, *canaliculus*, a small channel) *a*

Cl rarely somewhat branched, slightly tough, hollow, very smooth, at length compressed or split longitudinally, white or shaded faintest salmon

Solitary, sometimes in pairs, rarely in threes On the ground 3½ in

- 1965a C tenerima** Mass & Crossl (from its tender substance, *tener*, tender)
Cl cylindrical, flexuous, somewhat attenuate above, base not narrowed, hyaline white
 Gregarious but distinct at base Amongst short grass 1½ in Resembles 1962 in habit
- 1966 C acuta** Sow (from the sharp pointed clubs, *acutus*, sharp)
a b c
 Tense, straight with a translucent stem distinct from the opaque club, white
 Solitary Sides of damp ditches, in garden pots, rare Sept-Nov 1 in
 Hardly a *Clavaria* Sowerby's original drawing has the appearance of a *Torrubia* growing on a dead chrysalis perhaps a *Pistillaria*
- 1967 C uncialis** Grev (from its usual length about one inch, *uncia*)
a b c
Cl stuffed, tough, tense and straight obtuse, smooth, white, sometimes shaded faintest rose, becoming pale amber
 Dead stems of herbaceous plants, umbellifers uncommon May-Nov 1 in
- 1968 C pistillaris** L (from the pestle shape *pistillum*, a pestle) *a b c*
 Fleishy, stuffed, ovato-clavate, obtuse light yellow to brownish-tan or rufescent
 Solitary Taste bitter odour not unpleasant Woods amongst ferns and leaves, roadsides under hedges, uncommon Sept-Nov 11½ in
- 1969 C ligula** Schaeff (from the shape like a small tongue or strap, *ligula*) *a c*
 Spongy-fleshy, elongato-clavate, obtuse, rarely slightly forked, villous at base, yellowish to pallid rufescent, rarely pale red
 Gregarious Woods, fallen twigs and branches, amongst fir leaves, moss 4½ in
- 1970 C contorta** Holmsk (from the usually twisted shape, *contortus*, twisted) *a b c*
 Contorted, wrinkled, obtuse, sometimes attenuate upwards or broadly spatulate, rarely bifid, spongy-fleshy, stuffed, watery-yellowish to somewhat pale olive-yellow
 Solitary or caespitose Wood, twigs, alder rare Sept-Nov 4 in
- 1971 C fistulosa** Holmsk (from the hollow clubs, *fistula*, a pipe) *a c*
 Slender, tense, straight, hollow, light yellowish, yellow, ivory-buff or buff to orange and rufescent, rooting and villous below
 Twigs, branches, etc 9½ in
- 1972 C tuberosa** Sow (from the tuberous base) *a b*
 Tough, even, aculeate, hollow, tuberous and solid below, held to the matrix by flocci, ochre to somewhat pale salmon-umber
 Caespitose Sticks, birch, bursting through the bark Nov 3 in
- 1973 C juncea** Fr (from the rush-like shape, *juncus*, a rush) *a b c*
 Filiform, flaccid, hollow, acute, pallid to rufescent or yellow, pale ochre or pale orange, base creeping, fibrillose
 Gregarious Woods, amongst leaves, twigs and moss, fir, poplar, beech, oak Sept-Nov 5 in Sometimes hair like in thinness, the base

spreading over leaves Sometimes certain individuals spring from a small orange brown sclerotum as in *Typhula* or a white base $\frac{1}{8}$ in in diam. Must not be confounded with 1986 or 1992

1974 C ardenia Sow (after Lady Arden) *a b c*

Apex of the very hollow inflated Cl acute or rounded, then more or less collapsing and becoming depressed, brown-ochre with an olive shade or date-brown, base creeping, white tomentose

Fallen branches, amongst fir leaves, under laurels, on rotting hazel sticks, rare Oct-Dec $8\frac{1}{2}$ in

1975 C incarnata Weinm (from the flesh colour, *incarnatus*, flesh-coloured)

Solid, cylindrical, flesh-colour, internally purple

Gregarious On the ground

XCIII CALOCERA Fr

(From the shape and colour, like beautiful horns, Gr *kalos*, beautiful, *keras*, a horn)

Gelatinoso-cartilaginous, horny when dry, somewhat cylindrical, simple or branched, viscid, without a distinct stem *Hymenium*

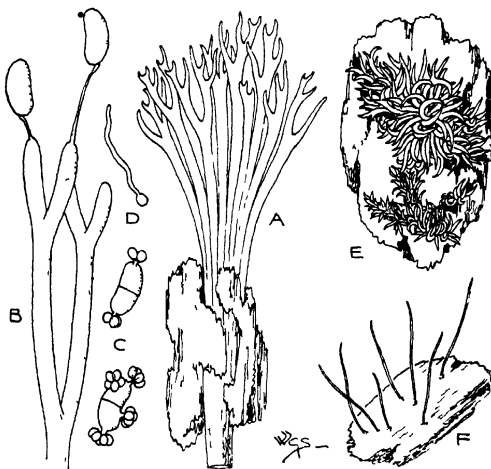


Fig 108 —A, *Calocera viscosa* Fr two thirds natural size B basidia and spores of ditto C spores germinating and producing sporidiola D sporidium germinating $\times 600$ E *C. stricta* Weinm, F *C. stricta* Fr two thirds natural size

amphigenous *Basidia* furcate or bilobed, each lobe bearing a single one-spored sterigma. *Spores* oblong, curved, septate on germination, producing heads of ellipsoid sporidiola as in the *Tremellinaceæ* (Fig 108)

Growing on wood

Species 1976—1982

Branched

1976, 1977

Cæspitose

1978, 1979

Simple, solitary

1980—1982

1976 *C viscosa* Fr (from its viscosity) *a b c*

Branches more or less vertical, repeatedly dichotomous, orange, the rooting base paler

Rotten wood, stumps, chiefly pine, very common July–Dec $2\frac{1}{2}$ in
Base $2\frac{1}{2}$ in

1977 *C palmata* Fr (from the palmate branching) *a c*

Tremelloso-tough, compressed, dilated upwards and more or less horizontally palmato-divided, orange-yellow or orange

Wood $\frac{3}{4}$ in

1978 *C cornea* Weinm (from the horn-like shape *cornu* = horn)
a b c

Simple, awl-shaped, sometimes bifid rarely trifid, connate at base, rooted, even, orange

Dead wood, pine, oak, beech, willow, birch, old deal boards frequent
June–Feb $\frac{5}{8}$ in

1979 *C corticallis* Fr (from the habit, piercing through bark, *cortex*) *a c*

Awl-shaped *Cl* somewhat distinct, soft, pellucid, pallid flesh-colour

Dead bark Dec–Jan $\frac{1}{8}$ in

1980 *C stricta* Fr (from the habit, tense and straight, *strictus*) *a b c*

Linear, sometimes slightly spatulate, yellow, sometimes brownish below

Ash, naked wood Oct 1 in

1981 *C striata* Fr (from the striæ on the clubs) *a b*

Lanceolato-clavate, tough, acute, striate when dry, yellow

Wood, prostrate trunks March $\frac{1}{2}$ in

1982. *C glossoides* Fr (from the tongue-like shape, Gr *glossa*, the tongue, *eidos*, appearance) *a b c*

Clavate, subtremellose, obtuse, compressed, stem round, light yellow

Oak Dec $\frac{1}{2}$ in

XCIV PTERULA Fr

(From a fancied resemblance to a little wing, Gr *pteron*, a wing)

Subcartilaginous, filiform, arid, stemmed or stemless, branched in the two British species, subulate, apices attenuato-acute, branches

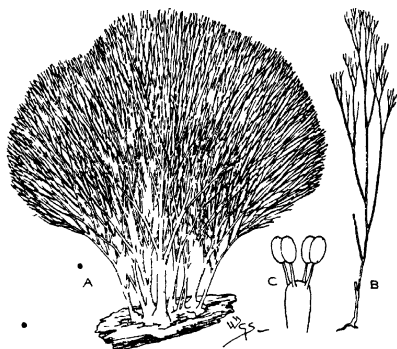


Fig 109 —A, *Pterula subulata* Fr, natural size B single branch of ditto C basidium and spores of *P. multifida* Fr X 500

somewhat anastomosing, pubescent then smooth *Basidia* tetrasporous When young the stems and branches are considerably thicker than when mature (Fig 109)

The cartilaginous substance indicates a relationship with *Tremellinaceæ* and *Calocera*, the basidia and spores are typical of the *Clavariaceæ*

Species 1983, 1984

1983 *P. subulata* Fr (from the awl-shaped branches, *subula*, an awl) a c

Densely crowded, sparingly branched, tense, equal, the thread-like smooth branches multifid at the acute apices, whitish-cinereous, becoming yellowish

On wood, amongst pines gardens 1½ in

1984 *P. multifida* Fr (from the many branchlets, *multus*, many, *fido*, to cleave) a b c

Very much branched, very delicate, flaccid, branches tense, straight, usually hair-like, variable in thickness, apices attenuate, pointed, base sometimes thick or with several confluent stems, at first pallid whitish then dull pale yellowish or sulphury-brown

Branches, leaves, bases of dead ferns, etc Sept - Nov 2 in

XCV TYPHULA Fr

(From a fancied resemblance in some of the species to a minute *Typha* or reed-mace)

Small thread-like fungi with a long or short filiform-stem, heterogeneous from the linear or slightly inflated club, often springing from a small sclerotium *Hymenium* wavy (Fig 110)

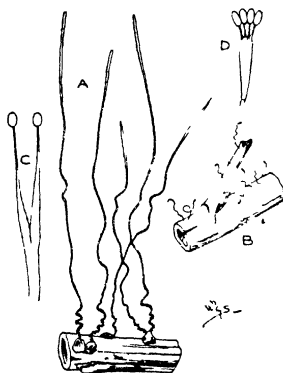


Fig 110—A *Typhula phacorrhiza* Fr one half natural size
B *T. gracillima* White one half natural size C basidium and
spores of *T. gracilis* Berk & Desm D ditto of *T. erythropus* Fr
X 500

Growing on twigs, leaves, etc, rarely terrestrial, but the sclerotia will readily grow in earth if planted

Species 1985—1995

a *Phacorrhiza* Springing from a sclerotium 1985—1989

b *Leptorrhiza* Sclerotium absent 1990—1995

The characters as given by Fries are far from permanent, all the species of *Typhula* may grow with or without a sclerotium. A sclerotium sometimes occurs in the allied genera, *Clavaria* and *Pistillaria*

a *Phacorrhiza*

1985. **T erythropus** Fr (from the red stem, Gr *erythros*, red, *pous*, a foot) a b c

Cl linear or nearly so, cylindrical, smooth, white *St* elongate, filiform, usually bent or variously twisted, finely pubescent under a lens, crimson-brown *Scl* $\frac{1}{8}$ in or less, depressed,

sometimes hidden beneath a thin bark or membrane and easily overlooked, brown, dark-brown when dry, sometimes absent.

Leaves, sticks, poplar, alder, ash, sunflower, common Sept–Nov 1 in
The sclerotium is *Sclerotium scutellatum* A & S

- 1986 T phacorrhiza** Fr (from the lentil-like base, Gr *phakos*, a lentil, *rhiza*, a root) *a b c*

Cl linear, cylindrical, pallid to ivory and orange *St* linear, confluent with club, elongate, flexuous, yellowish, pilose at the sometimes fuscous base *Scl* $\frac{1}{2}$ in or less, pale brown or buff, reddish-brown when dry

Woods, hedgerows, gardens, herbaceous stems, leaves, moss, plane, hazel, alder, ash, apple, sometimes on earth, uncommon, but sometimes found in considerable abundance in patches Oct–Nov $4\frac{1}{2}$ in Must not be confounded with 1973 or 1992 The sclerotium is *Sclerotium scutellatum* A & S and *S. complanatum* Tode

- 1987 T incarnata** Fr (from the flesh colour, *incarnatus*, flesh-coloured) *a c*

Cl cylindrical, obtuse, rarely forked, flesh-colour or white, more or less tinged with salmon-pink above *St* continuous with the club, pilose downwards *Scl* 1 in or less, compressed, fuscous

Dead herbaceous stems uncommon $3\frac{1}{2}$ in Closely allied to 1986 The sclerotium is *Sclerotium fulvum* A & S

- 1988 T gyrans** Fr (from the twisted habit *gyro*, to turn in a circle) *a b c* White

Cl cylindrical *St* filiform, gyroso-undulate pubescent *Scl* $\frac{1}{10}$ in, pallid to orange and brown becoming fuscous

Straw, twigs, leaves, alder, poplar, uncommon Oct $\frac{1}{2}$ in The sclerotium is *Sclerotium complanatum* Tode

- 1989 T muscicola** Fr (from its habit, living on mosses *muscus*, moss, *colo*, to inhabit) *a c* White

Cl elongate, cylindrical obtuse *St* thin, smooth *Scl* $\frac{1}{16}$ in, even, pallid

Larger mosses, uncommon $1\frac{1}{2}$ in

b Leptorrhizæ

- 1990 T Grevillei** Fr (after Dr Robert Kaye Greville) *a b c*
White

Cl thickened, obtuse *St* capillary, pilose white

Dead leaves frequent Oct $\frac{1}{4}$ in Only distinguished from 1988 by the absence of a sclerotium

- 1991 T gracillima** White ex B & Br (from the very slender habit, *gracilis*, slender) White

Cl elongate *St* very slender, curved, smooth

Various herbaceous plants $\frac{1}{4}$ in

1992. T filiformis Fr (from the thread-like stem, *filum*, a thread, *forma*, form) *a b c* 11.

Cl elongate, thickened, smooth, whitish *St* often branched, decumbent, date-brown

Dead leaves, holly, *Comptonia asplenifolia*, matting *rare* Nov 2½ in
Sometimes springing from a very small sclerotium Must not be confused with 1973 or 1986

1992a. T tenuis Fr (from its attenuation *tenuis*, thin) *a*

Cl simple, glabrous, hair-like, thickening upwards, brown-black

Gregarious On rotting wood in cellar ½ to ¾ in "It resembles a little black hair thickening upwards," Sowerby

1993 T gracilis Berk & Desm (from the slender habit *gracilis*, slender) *a b* Pallid

Cl simple or forked, acute, pubescent *St* short, distinct, smooth or as club

Putrid leaves uncommon Dec ¾ in Has the appearance of *Isaria puberula*, but bears bisporous basidia

1994 T pusilla Schrœt (from its very small size *pusillus*, very small) *a* White

Cl linear, usually drooping *St* linear

Horse tail, plane, willow wych elm, alder ¼ in Leaves often covered with minute sclerotia, from which the *Typhula* sometimes springs

1995 T translucens B & Br (from its translucent substance) *a*
Pellucid white

Cl irregular, somewhat obovate *St* short, thickened upwards

Terrestrial Oct "Not a fungus," Massee, *Brit Fun, Fl* vol 1 p 91
"Resembling somewhat a prematurely dried *Myxogast*, but a true Basidio mycete," B & Br in *Ann Mag Nat Hist ser 4*, vol xvii p 138

XCVI PISTILLARIA Fr

(From the form, like a pestle, *pistillum*)

Small, club-shaped or attenuate downwards into a short continuous stem, rarely forked, cartilaginous and rigid when dry, sometimes springing from a sclerotium (Fig 111) Species 1996—2000

1996 P tenuipes Mass (from the thin stem, *tenuis*, thin, *pes*, a foot) *a*

Cl inflated, obovate, wrinkled, pallid clay-colour or ochre

St slender, flexuous, somewhat distinct from the club, ivory

Bare heathy ground, charcoal heaps Nov-Jan 1 in *Clavaria tenuipes* B & Br

1997 P micans Fr (from its glistening surface, *micco*, to glisten) *a b c*

Cl inflated, obovate, obtuse, smooth or slightly pruinose, glistening rose-colour, rarely purplish *St* short, attenuate, white

Dead stems and leaves, thistles, nettles, spurge, *Artemisia*, *rare* July ½ in

- 1997a *P. fulgida* Fr (from its shining colour, *fulgeo*, to shine) *a*
Cl lanceolato-clavate, subacute, white or pale orange below,
 yellow or orange above

"On the bractes of *Dipsacus pilosus*," Sowerby $\frac{1}{2}$ in

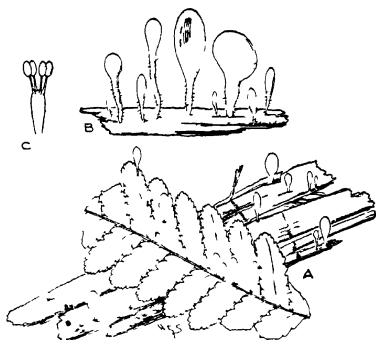


Fig 111 — A *Pistillaria puberula* Berk. natural size B ditto \times ,
 basidium and spores $\times 100$

- 1998 *P. culmigena* Fr ex Mont (from its habitat, grass-stems, *culmus*, a haulm, *gigno*, to bear) *a b c* White

Cl ovato-clavate, obtuse, hyaline-pellucid *St* distinct, very short cartilaginous when dry

Stems and leaves of grasses, *Secale*, *Tritium*, *Dactylis glomerata* Oct - Nov $\frac{1}{2}$ in

1999. *P. quisquiliaris* Fr (from its habitat, sweepings, rubbish, etc, *quisquiliaræ*) *a b c* Whitish

Cl ovato-clavate, somewhat compressed, rarely bifid, soft when fresh, rigid when dry *St* short, often springing from a sclerotium

Fern stems, oak wych elm, grass, willow herb, *Chenopodium* April-Nov $\frac{1}{2}$ in

- 1999a *P. ovata* Fr (from the ovate shape) *a*

Cl obovate, ventricose, subdepressed, hollow, white *St* very short, glabrous, pellucid

Dead stems and leaves, birch, bramble, poplar, elm, willow $\frac{1}{2}$ in

- 2000 *P. puberula* Berk (from the tomentose stem, *pubes*, downy) *a b c* White

Cl ovate, ventricose *St* short, distinct, attenuate upwards, pellucid, fibrous, tomentose

Ferns, stems and leaves of herbaceous plants, rare Sept - Oct $\frac{1}{2}$ in

- 2000a *P. pusilla* Fr (from its very small size *pusillus*, small) *a*

Small, linear, attenuate upwards, stem scarcely distinct, white

Dead leaves Feb $\frac{1}{4}$ - $\frac{3}{4}$ in

FAM VI TREMELLINACEÆ

Entire fungus homogeneous, gelatinous, collapsing when dry, retaining its form when moistened, traversed internally by branched hyphæ which terminate in basidia at the periphery Basidia variable in form, elongate or fusoid, transversely septate or continuous, undivided or forked at the apex, or subglobose and longitudinally divided and bearing 2 to 4 sterigmata Spores hyaline, from globose to sausage-shaped and curved, continuous or septate, often becoming variously septate on germination and producing sporidiola of different forms

Species 2001—2041

KEY TO THE SUBFAMILIES AND GENERA

Basidia elongate or fusoid, simple, transversely septate	Subfamily I	AURICULARIOIDEÆ
Attached broadly	97	AURICULARIA
Attached by a point	98	HIRNFOIA
Basidia subglobose at maturity, longitudinally quadripartite	Subfamily II	EUTREMELLINOIDEÆ
Cup shaped, truncate or irregularly lobed	99	EXIDIA
Pulvinate, gyrose	100	ULOCOLIA
Brain like or lobed	101	TREMELLA
Convex, with a central hard nucleus	102	NEMATIELIA
Erect, spatulate	103	GYROCEPHALUS
Basidia cylindrical or clavate	Subfamily III	DACRYOMYCETOIDEÆ
Small, pulvinate, gyrose	104	DACRYOMYCES
Irregularly cup shaped, sessile	104A	FEMSJONIA
Versiform, substipitate	105	GUEPINIA
Stipitate, hymenium on expanded apex	106	DITHOIA

SUBFAMILY I AURICULARIOIDEÆ

Basidia elongate or fusoid, simple, transversely septate

Species 2001—2003

XCVII AURICULARIA Bull

(From a fancied resemblance in some of the species to an ear,
auricula)

Subcoriaceous or gelatinous when moist, broadly attached *Hymenium* remotely and reticulately costate or plicate, collapsing when dry *Basidia* cylindrical, transversely tri-quadri- or quinque-septate, each joint or cell producing a single, slender sterigma from

its apex *Spores* oblong, curved, producing on germination a branched promycelium bearing several strongly curved sporidiola (Fig 112)

A genus of fungi greatly resembling *Stereum* in habit, and perhaps more nearly allied to the *Thelphoraceæ* than the *Tremel-*



Fig 112 — A B *Auricularia mesenterica* Pers entire and in section One half natural size
C basidium and spore D spores germinating and producing sporidiola X 500

linaceæ, the fructification is, however, very different from that of *Thelphora*, while the strigose cartilaginous pileus differs from typical *Tremellinaceæ*. The next genus *Hirneola* is clearly allied to *Auricularia* in habit, substance and fructification

Species 2001, 2002

2001 *A. mesenterica* Pers (from a fancied resemblance to the mesenteric membrane) a b c

P resupinate, then reflexed, entire or slightly lobed, villous, yellowish, often green at base from algal growths, *z* brownish
Hym costato-plicate, brownish-violet, livid-purple or grey-liver

Taste insipid odour none Trunks, stumps, beech, elm, walnut, vine, chestnut, furze, broom, yew, frequent Jan-Nov 8½ in Sometimes terrestrial, springing from buried wood, and then sometimes not unlike *Sticta pulmonaria* in appearance

2002. *A. lobata* Sommerf (from the lobed pileus) a b c

P effuso-reflexed, much lobed, strigose or velvety, warm yellowish-brown, *z* darker, often green at base from algal growths
Hym broadly reticulato-ribbed, fuscous-livid

Bark of trees, elm, not uncommon 4½ in Closely allied to, if not identical with the last, the fruit is the same

XCVIII HIRNEOLA Fr

(From the jug-shape when young *hirnea*, a jug)

Gelatinous or cartilagino-gelatinous, soft and tremelloid when moist, cup- or ear-shaped. *Hymenium* gelatinous, even or plicate, barren under-surface minutely velvety, attached by a point, coriaceous



Fig 113—A B, *Hirneola Auricula* Jud. Peck, entire and in section. One half nat. size. C, basidium and spores. D, spores germinating and producing sporioidia. E, sporioidia germinating. $\times 500$

and membranous when dry, reviving with moisture. *Basidia* rod-shaped or fusoid, transversely septate, each cell bearing a single monosporous sterigma. *Spores* oblong, curved becoming 1-3 septate and on germination producing minute sporioidia sometimes on septate promycelium. (Fig 113)

2003 H Auricula-Judæ Berk ("Jew's-ear") *a b c*

P thin, concave, flexuous, somewhat veined, tomentose, brown flesh-colour to reddish-brown or blackish. *Hym* venosoplicate, glossy salmon, warm brown or reddish purple-black when dry

Cespitose. Trunks, elder, elm, willow, walnut oak, holly, *Robinia*, frequent Jan-Dec 3 in. Much like *Peziza vesiculosa* in appearance when young. Formerly used as a remedy for dropsy. Eaten by inhabitants of Ukraine

SUBFAMILY II EUTREMELLINOIDEÆ

Basidia subglobose, at maturity longitudinally quadripartite and producing at the apex two to four elongate sterigmata

Species 2004—2029

XCIX EXIDIA Fr

(From the exuding receptacle, Gr *exidio*, to exude)

Gelatinously distended, tremelloid, irregularly gyrose and lobed, submarginate or effused, often papillose, when young cup-shaped and truncate *Basidia* globose or ovoid, typically longitudinally four-

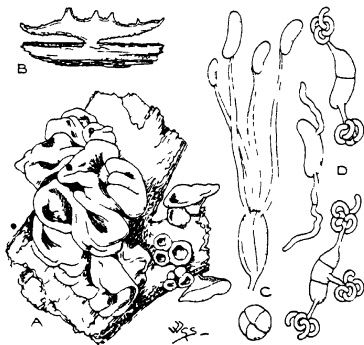


Fig. 114.—A B *Exidia andusia* Fr. entire and in section. One half natural size. C basidium and spores. D spores germinating and producing sporidial filaments. X 100.

partite, bearing four elongate stout sterigmata. *Spores* reniform, for a long time continuous, becoming 1- to many-septate on germination each cell or loculus of the spore giving origin to a very short promycelium bearing a crown of strongly-curved sporidial filaments (Fig 114.)

Species 2004—2007

- a *Auriculinae* Peroid 2004, 2005
- b *Spiculariae* Somewhat plane, not lustrous beneath, glandular, here and there gyrose 2006, 2007

a *Auriculinae*

2004 **E truncata** Fr (from its appearance as if cut short *trunco*, to maim, shorten) a c Soft, distended, shining black

Disc truncato-plane, glandular, at length cavernous, rough with dots beneath. *St* very short

Bursting through bark lime, willow Dec 13 in Like 2006 on a small scale

2005 *E. recisa* Fr (from its appearance as if cut back, *recido*, to cut short) *a b c*

Very soft, warm yellow-brownish or brownish-vinous *Disc* truncato-plane, ribbed, papillose, somewhat repand, rough with dots beneath *St* very short excentric

Branches, willow, poplar, plum common Sept-Dec 1½ in

b Spicularia

2006 *E. glandulosa* Fr (from the glandular hymenium) *a b c*

Effused, thick, somewhat plane, undulate, sometimes pendulous, and 8 to 10 inches long, the upper hymenial surface papillose and somewhat veined, the lower surface next to the matrix crape-like to the touch and lustreless, black, blackish, purple-slate or olive-blackish

Tasteless Branches, oak, willow, *Ailanthus*, lime, alder, walnut Aug-Mar 5½ in When young somewhat cup shaped and like one of the *Peziza* or *Bulzaria inquinans* in appearance Translucent when quite fresh "Witch's Butter"

2007 *E. albida* Bref (from the whitish colour *albus*, dead white) *a b c*

Tough, undulate, subgyrose, pruinose, white or faintly shaded ivory or lavender

Branches, birch, beech, alder, pine, hawthorn Sept-May 1½ in

C *ULOCOLLA* Bref

(From its glue-like consistency and appearance

Gr oulos, shaggy, *kella*, glue)

Sporophore convex, pulvinate, gyrose, cerebriform, gelatinous, rather large *Basidia* globose, soon longitudinally quadri-partite

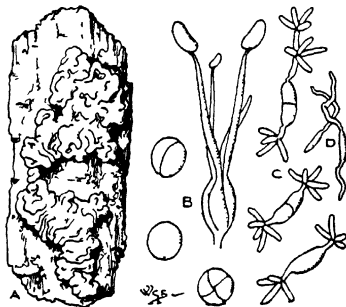


Fig 115 —A *Ulocolla saccharina* Bref One half natural size
B basidia and spores C, spores germinating and producing sporidiola D, sporidiola germinating X 500

Sterigmata elongate, thick. *Spores* for a long time continuous, then uniseptate, reniform, each loculus on germinating giving origin to a very short promycelium bearing at its apex straight rod-like sporidiola (Fig 115) Species 2008, 2009

2008 **U saccharina** Bref (from the colour, like one kind of sugar, *saccharon*) *a b c*

Effused, tubercular, gyroso-undulate, thick, sprinkled with a few minute obtuse evanescent papillæ, tawny cinnamon

Branches, larch, pine, rare Nov 3 in

2009 **U foliacea** Bref (from a fancied leafy or lamellate appearance, *folium*, a leaf) *a b c*

Flaccid, even, diaphanous, undulate, plicate at base, cinnamon-salmon or vinous-buff, sometimes shaded yellowish

Cespitose Stumps, logs, rails, etc, pine, oak, amongst fir-leaves, spreading to the ground Aug-Jan $3\frac{1}{2}$ in

CI TREMELLA Dill

(From the jelly-like tremulous substance)

Pulvinate or effused, brain-like or lobed, gelatinous, tremelloid, immarginate, generally smooth *Basidia* globose, sometimes bifid or

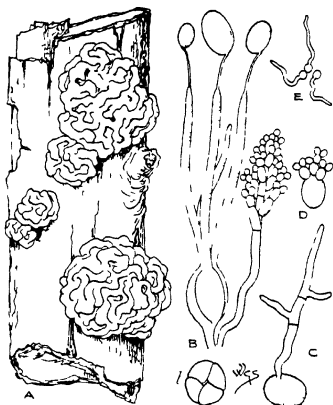


Fig 116 —A *Tremella lutescens* Pers One half natural size
B basidium with surface view C spores and conidia C spore
germinating and producing hyphae D ditto producing sporidiola
E sporidiola germinating $\times 500$

trifid, but usually longitudinally quadripartite, each quadrant of the basidium elongating into a long, stout sterigma *Spores* subglobose,

continuous, on germination a tube is formed that is covered with broadly elliptical sporidiorh *Conidia* when present, as in 2012, 2013 and 2021, subglobose, racemose in sporiferous conceptacles in the sporophore (Fig 116) Species 2010—2024

- a Mesenteriformes* Cartilagineo-gelatinous lobes large, foliaceous, not pruinose with spores, cespitose 2010—2012
- b Cerebrina* Lobes short, contorted brain-like, pruinose with white spores 2013—2015
- c Crustacea* Effused, applanate 2016—2018
- d Tuberculiformes* Small suberumpent 2019—2024

a Mesenteriformes

2010 **T fimbriata** Pers (from the somewhat fimbriate edges of the lobes) *a b*

Erect, corrugate, lobes flaccid, blackish-olive to brown-black marg undulato-fimbriate or incised

Dead branches, rare 4½ in

2011 **T frondosa** Fr (from a fancied leaf- or lamella-like appearance in the lobes *frondosus*, leafy) *a b c*

Even, gyrose-undulate, plicate at base diaphanous, pale yellowish-buff, shaded salmon or vinous in places base brownish-vinous Stumps, roots of living trees, oak, beech, hornbeam July-Nov 9 in

2012 **T lutescens** Pers (from the yellowish colour *luteus* yellow) *a c*

Tremulous soft, inclining to fluid, undulato gyrose, lobes crowded, entire, at first whitish then pale yellowish

Stumps, oak frequent Aug-Feb 1½ in

b Cerebrina

2013 **T mesenterica** Retz (from a fancied resemblance to the mesenteric membrane) *a b c*

Expanded, somewhat tough, plicate undulate, gyrose changeable in form, smooth, vivid yellow to rich orange

Dead branches, sticks, rails, oak, alder, beech, fume, broom, ivy, common Jan-Dec 3½ in

2014 **T intumescens** Sm (from the swollen habit *intumescere*, to swell up) *a b c*

Rounded or conglomerate, somewhat tortuous and lobed, obsoletely punctate, soft, brown

Subcespitose Fallen trunks in a wet state, beech, rare Jan 2½ in Becoming a thin black membrane when dry

2015 **T vesicaria** Sm (from the swollen, bladder like lobes, *vesica*, a bladder) *a b c*

Erect, firm, gelatinous, gyrose, much waved and wrinkled, gelatinous within, dull biscuit

On the ground, rare Sept 4½ in Often much inflated and soon falling over

c *Crustaceæ*

- 2016 T viscosa** Berk (from the viscid substance) *a c*
 Effused, thin, resupinate, obscurely veined, undulato-uneven,
 following inequalities of matrix, white, becoming hyaline or
 translucent yellowish-white
 Dead branches, rotten wood, oak, common Jan-Dec 4 in Collapses
 completely in drying, leaving only a purple grey stain on the bark
- 2017 T epigæa** B & Br (from its habitat, the earth, Gr *epi*, upon,
gaia, the earth) *a b c*
 Effused, thin, gelatinous, obscurely gyroso-plicate, hyaline, then
 white
 Covering twigs, moss, beech nuts, etc., and spreading on to earth, rare
 Aug-Nov 4 in
- 2018 T violacea** Relh (from the violet colour) *a*
 Erumpent, firm, somewhat compressed, gyrose, violaceous
 Gregarious Trunks, pear rare § in Sometimes confounded with **2020**

d *Tuberculiformes*

- 2019 T indecorata** Sommf (from its dull colour, *indecorus*, ugly) *a*
 Sessile, rounded, convex, plicate, moist, opaque dull livid or
 olivaceous, becoming dark brownish or slate-colour
 Branches, birch, oak, willow, hazel, poplar, rare Oct-Nov Length of
 connate group $3\frac{1}{2}$ in width $1\frac{1}{2}$ in
- 2020 T moriformis** Sm (from a fancied resemblance in the
 shape and colour to a mulberry *morus*, a mulberry, *forma*,
 form) *a b c*
 Conlobate, sinuous, somewhat gelatinous but firm, mulberry-
 black *Flush* purple-crimson-blackish, base black
 Maple, chestnut, *Robinia*, elm, plane, rare June-Feb Common size
 about 1 in \times 3 in Sometimes confounded with **2018**
- 2021 T tubercularia** Berk (from its appearance, like a little tuber,
tuberculum) *a b*
 Erumpent, substipitate, plicate, stem round, dull white
 Bark wood, oak, on old decayed *Cortium* Oct-Dec $\frac{1}{8}$ in *Tubercularia*
albida B & Br, *Brit Fl* vol v p 354 "Coryne sp Berk MS on
 original example "Certainly not a *Tremella*, but the conidial form of
 some species, Masset, *Brit Fung Fl* vol i p 64
- 2022 T versicolor** B & Br (*versicolor*, changeable in colour) *a b c*
 Orbicular, tear-like, pallid when young, then orange, at length
 brownish-ochre
 On 1845, ash, briar, uncommon Feb-May $\frac{1}{8}$ in
- 2023 T atrovirens** Sacc (from the blackish green colour *ater*,
 black, *viridis*, green) *a b c*
 Erumpent, disciform, very minutely papillate and rugose
 Gregarious or confluent, growing through cracks in bark Dead branches,
 broom Oct $\frac{1}{8}$ to $\frac{1}{2}$ in

2024 *T. clavata* Pers (from its somewhat clavate shape) *a*

Incrassate, fleshy-red, becoming black at base

Solitary, simple or connate Branches Average size of single growth $\frac{3}{8} \times \frac{1}{2}$ in Possibly a form of *T. sarcodes* With, and, if so, a condition of *Ombrophila sarcodes* Jacq, one of the Discomycetes

[*T. sarcodes* With is an early condition of *Ombrophila sarcodes* Jacq
T. foliicola Fuck is not a *Tremella* it forms small gelatinous tufts or spots on the leaves of *Rubus fruticosus* in company with *Phaeomidium*
T. brassicicola B & Br is probably a form of *Hypocrea rufo* Fr, it grows on and in cabbage stumps]

CII NÆMATELIA Fr

(From the gelatinous substance which surrounds the nucleus,
Gr *nauma*, gelatine, *elco*, to roll or wrap round)

Subgelatinous, firm, convex, with a firm fleshy central solid portion called the nucleus, not shrivelling when dry *Basidia* subglobose, longitudinally quadripartite *Spores* broadly elliptical, continuous (Fig 117)

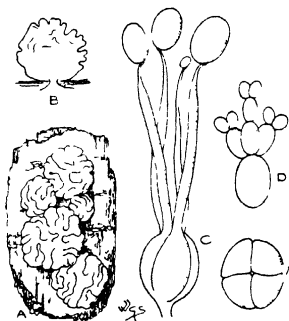


Fig 117—A B *Nematelia encephala* Fr entire and in section
One half natural size C basidium with surface view, *E* and spores
D) spore germinating and producing sporidiola $\times 50\times$

Readily distinguished by the presence of the central solid nucleus, which is composed of interwoven hyphæ and covered with a thick gelatinous spore-bearing stratum Growing on wood, sometimes on moss, rarely terrestrial Species 2025—2028

2025 *N. encephala* Fr (from the contained nucleus, Gr *en*, with *n*, *képhale*, the head) *a b c*

Somewhat sessile, pulvinate, plicato-rugose, pallid flesh-colour, salmon or salmon-whitish, nucleus hard, large, white

Solitary to connate Branches, rails, pine, larch, frequent Sept—Mar
1 in Connate for 4 in

2026 *N rubiformis* Fr (from a fancied resemblance to a small fruit of *Rubus*, bramble) *a b*

Somewhat sessile, orbicular, gyroso-tuberculose, yellow

Dead branches, twigs, sometimes on moss, spreading to the ground Oct $\frac{3}{8}$ in

2027 *N nucleata* Fr (from the nucleus) *a b c*

Sessile, flattened, somewhat gyrose, whitish, then tawny yellow, nucleus white, about $\frac{1}{8}$ in in diam

Rotten wood, sticks, lime, plane, oak, rare Mar Single plants $\frac{3}{8}$ in in diam Connate to $1\frac{1}{4}$ in Must not be confounded with 2007

2028 *N virescens* Corda (from the greenish colour, *vireo*, to be green) *a b*

Sessile, suborbicular, depressed, gyroso-tubercular, somewhat pale leaf green Forming green gelatinous masses

Furze, ivy, common Oct-June Single plant $\frac{3}{8}$ in Connate chains $1\frac{1}{2}$ in

CIII GYROCEPHALUS Pers

(From the globular shape, Gr *gyros*, round, *kephale*, the head)

Spotophore erect, substipitate, flattened, subspathulate, irregular, tremelloso-cartilaginous *Hymenium* confined to one surface

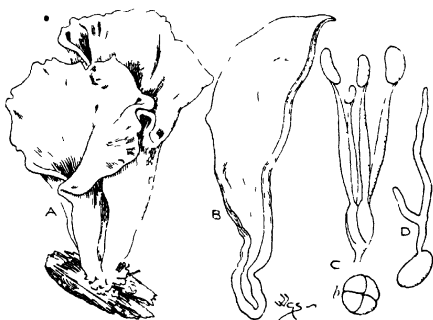


Fig 118 — A B *Gyrocephalus rufus* Bref entire and in section One-half natural size
C basidium with surface view D spores D spore germinating X 500

Basidia globose, soon longitudinally quadripartite *Sterigmata* 2-4, elongate, thick *Spores* ovato-pyriform, continuous (Fig 118)

2029 *G rufus* Bref (from the red colour, *rufus*, red) *a b c*

Erect, cartilagineo-gelatinous, substipitate, subspathulate, sometimes stemless, variable, orange to red or dull scarlet above and orange below *Hymenium* inferior, smooth

Terrestrial, under pines, on rotten trunks, fragments of wood $3\frac{1}{2} \times 3$ in

SUBFAMILY III DACRYOMYCETOIDEÆ

Basidia cylindrical or clavate, divided at the apex into two long sterigmata, not septate, except in *Femsjonia*, where the basidia and sterigmata become septate with age Species 2030—2041

CIV DACRYOMYCES Nees

(From the tear-like habit Gr *dalu*, a tear, *mukes*, a fungus)

Small, pulvinate, gelatinous homogeneous, somewhat plicatogryose, everywhere covered with the hymenium *Basidia* terminating normal hyphæ, tereti-clavate, bifurcate at the apex when mature

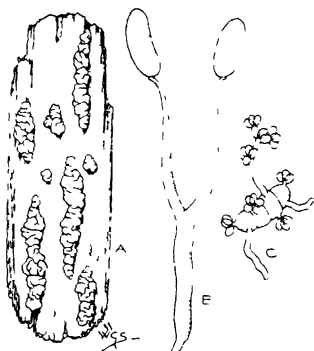


Fig 119 —A *Dacryomyces atropurpureus* Duby. One half natural size. B basidium and spores. C spore germinating and producing sterigmata. $\times 600$

Spores cylindric-oblong, curved, at maturity or during germination variously septate or muriform. In the conidia-bearing sporophores the conidia, which more or less resemble the spores in size and form, are produced in chains (Fig 119)

The species grow on dead wood

Species 2030—2036

Rose-coloured

2030

Orange, yellow or yellowish

2031—2033

Pallid or fuscous

2034

2030 **D macrosporus** B & Br (from the long spores Gr *makros*, long) *a b c*

Gelatinous, tuberculate, minutely gyroso-granulose

Branches, in cracks, on remains of *Sphaeria striata* Dec—Apr Connate chains $2 \times \frac{1}{2}$ in

- 2031 **D deliquescens** Duby (from its appearance as if dissolving, *deliquesco*, to dissolve) *a b c*

Somewhat round, rooted, convex, immarginate, at length twisted, hyaline-yellowish, varying to sulphur, rarely to orange

Dead wood, cut wood, pine, holly, ash, oak Dec-Mar Connate chains $1\frac{1}{2} \times \frac{1}{2}$ in

- 2032 **D stillatus** Nees (from the drop-like habit, *stillo*, to drop) *a b c*

Somewhat round, convex, at length plicate, yellow to orange or scarlet

Rotten wood, fir poles, cut wood, pine, fir Jan-Dec Connate chains $1\frac{1}{2} \times \frac{1}{2}$ in Distinguished from 2031 by being usually smaller in size and brighter and more persistent in colour

- 2033 **D chrysocomus** Gul (from the colour as of golden hair, *Gr chrusos*, gold, *lome*, hair) *a b c*

Spherical, orbicular, immarginate, soon collapsing, pezizoid, at length flattened, even, bright golden-yellow, varying greenish- or buff-yellow or orange

Rotten wood, fir, rare $\frac{1}{16}$ in Small in size, usually in large numbers scattered over wood or bark

- 2034 **D sebaceus** B & Br (from a fancied resemblance to droppings of tallow, *sebum*) *a b c*

Somewhat round, cup-shaped, steel-grey

Branches, ash, willow, pea-sticks Jan-April Single plants about $\frac{1}{2}$ in in diam Curved chains $1\frac{1}{2}$ in

- 2035 **D tortus** Fr (from the twisted habit, *torqueo*, to twist) *a b c*

Round depressed, gyroso-tuberculate, substipitate, yellow to orange, sometimes vermilion

Dead wood, rotten powdery bark, oak Oct-June Single plant $\frac{1}{2}$ in Connate groups $\frac{1}{2}$ in

- 2036 **D vermiformis** B & Br (from a fancied resemblance to certain small worms *vermis*, a worm, *forma*, form) *a c*

Minute, worm-shaped, grey

Rotten wood April-Sept Single plants $\frac{1}{16}$ in Vermiform chains $\frac{1}{2}$ in

[*D succinus* Fr, appearing as minute dots on pine leaves has been shown by Phillips and Plowright to be the conidial stage of *Hymenoscypha dictyna* Phill & Plowr]

CIV A FEMSJONIA Fr

(From Femsjo, the name of a place)

Cup shaped, distended with firm jelly, different on the two sides, disc thick, heterogeneous, even, not glandular *Sperophorus* immersed,

globose. *Spores* oblong, curved, becoming septate, at first colourless, then orange-brown (Fig 120)

, Growing on wood, erumpent, brightly coloured

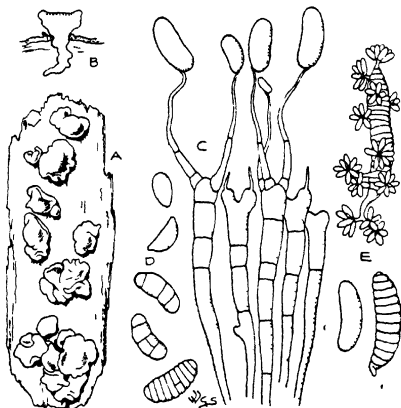


Fig 120—A B *Femsjonia luteoalba* 1r, entire and in section. One half natural size. C basidia and spores. D detached spores, the mature spores are septate. $\times 500$. E *Guepinia Femsjoniana* Olsen. Three spores, one germinating and producing sporidolia. $\times 500$.

2036a F luteoalba Fr (from the yellow disc and white exterior, *luteus*, yellow, *albus*, white) *a b*

At first cup-shaped, becoming disc-shaped and plane, at length convex and folded, disc bright brassy-yellow, with a narrow white marg, under surface at first white-tomentose to brassy-white, the tomentum soon passing away, rooting erumpent

Branches, birch, oak. Sept 8 in in diam. Looks like 2035 on a large scale. *Guepinia Femsjoniana* Olsen is perhaps the same as this.

CV GUEPINIA Fr

(After Jean Pierre Guepin)

Unequally cup-shaped, substipitate, versiform, cartilagineo-gelatinous, the two surfaces diverse in structure. *Hymenium* unilateral. *Basidia* linear, deeply bifurcate. *Spores* curved. Chains of conidia produced on the tips of hyphae springing from the surface opposed to the hymenium (Fig 121)

Species 2037, 2038

2037 G. *Peziza* Tul (from the *Peziza* shape) *a b*

Cup-shaped, cup oblique, sessile or stipitate, yellow

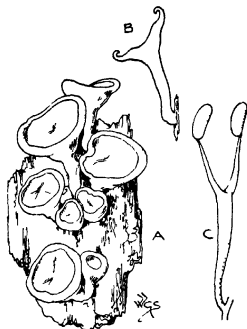
Dead branches, wood $\frac{3}{8} \times \frac{1}{2}$ in

Fig 121 — A B *Guepinia Peziza* Tul entire and in section $\times 2$
C basidium and spores $\times 500$

2038 G. *obliqua* Mass (from the oblique habit) *a*Minutely hairy on reverse side of Hym *Hym* slightly concave, oblique, passing into a very short stem-like base, glabrous, deep bright orange when moist, tinged with pink when dryGregarious Nov $\frac{1}{8}$ in high**CVI DITIOLA Fr**(From the down-like universal veil, Gr *dittos*, double, *ioulos*, down)*Veil* universal, down-like *Stroma* firm, more or less stem-like *Hymenium* discoid, gelatinous *Basidia* furcate *Spores* at first continuous then septate (Fig 122)

Massee has removed **2040** and made it the sole type of a new genus, *Dacryopsis*. It is undesirable to break up such a small and natural genus as *Ditola*. *Dacryopsis* is said to be distinguished from *Ditola* by having the hymenial surface at first covered with conidiophores and conidia as in *Tubercularia*, but this is hardly a distinction of generic value as conidia are present in some species of *Tremella* and not in others

Species **2039—2041****2039 D. *radicata* Fr** (from the rooting base, *radix*, a root) *a c*Stipitate, rooting, cups nearly plane, disc golden-yellow *St* thick, whiteWood, fir, amongst pine leaves $\frac{1}{8} \times \frac{1}{4}$ in No conidia recorded

2040 *D. nuda* B & Br (from the absence of a veil, *nudus*, naked) *a*

Head subpileiform, corrugate, sometimes umbilicate, golden-yellow *St* somewhat thick, not rooting, cylindrical, white-tomentose *Fr*uiting surface at first covered with conidiophores and conidia

Stumps, fir Sept $\frac{1}{2} \times \frac{1}{4}$ in

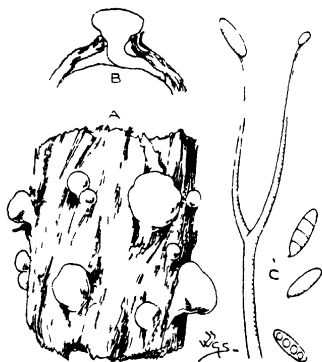


Fig 122 —A ■ *Ditola Uliis* Plowr entire and in section X
C basidium and spores X 500

2041 *D. Uliis* Plowr (from the habitat, gerse, *Ulex europæus*) *a c*

Head globose, then flattened and wrinkled pale lemon yellow, slightly white-villous *St* firm, paler than head, sometimes absent or extending only from the wood through the bark

Dead stems, very common Jan $\frac{1}{2} \times \frac{1}{4}$ in No conidia recorded

[The genus *Apyronium* Fr is omitted *A. h. natile* Fr is the conidial stage of *Hypocrea rufa* Fr *A. armeniacum* B & Br is the same condition of *H. gelatinosa* Fr *Hymenula punctiformis* B & Br is an imperfect form of some fungus not belonging to the *Tremellinaceæ*]

ORDER II GASTEROMYCETES

FAM VII PHALLOIDACEÆ

Pileus and stem or latticed receptacle at first enclosed in a universal volva of two membranes with a middle gelatinous stratum, volva at length opening at the apex. Gleba mucilaginous, at length elevated from the volva on a stem or lattice. Spores minute, elliptic-oblong, continuous, at first immersed in olive-brown mucilage.

Species 2042—2045

KEY TO THE GENERA

Pileus free, reticulate	107	ITHYPHALLUS
Pileus adnate	108	MUTINUS
Pileus divided in vertical lobes	110	LASIUS
Receptacle forming a hollow lattice of large meshes	109	CLATHRUS

CVII ITHYPHALLUS Fisch

(From a fancied resemblance to the *Ithyphallos*, carried at the festivals of Bacchus.)

Pileus reticulate attached to the apex of a hollow, perforate spongy, stem-like receptacle. *Volva* forming a thin film—sometimes a feeble white membrane—over the sporiferous mucous and slightly attached to the stem. (Fig. 123.)

2042 **I. impudicus** Fisch (from its phallic resemblance *impudicus*, shameless) *a b c*

P white, at first covered with olive brown sporiferous mucous. *Ree* elongato fusiform, spongy cellular, white. *Mye* cord-like.

Highly fetid. Woods, thickets, gardens, generally among the rotten tree roots and stumps, by gates, in and by summer houses, sheds, porches, often near to and in dwellings. May–Aug. Height 10 in. *Volva* *n. m.* Sacc. Borders of reticulations and pileus serrate sometimes reddish grey in colour, said to be violet-scented.

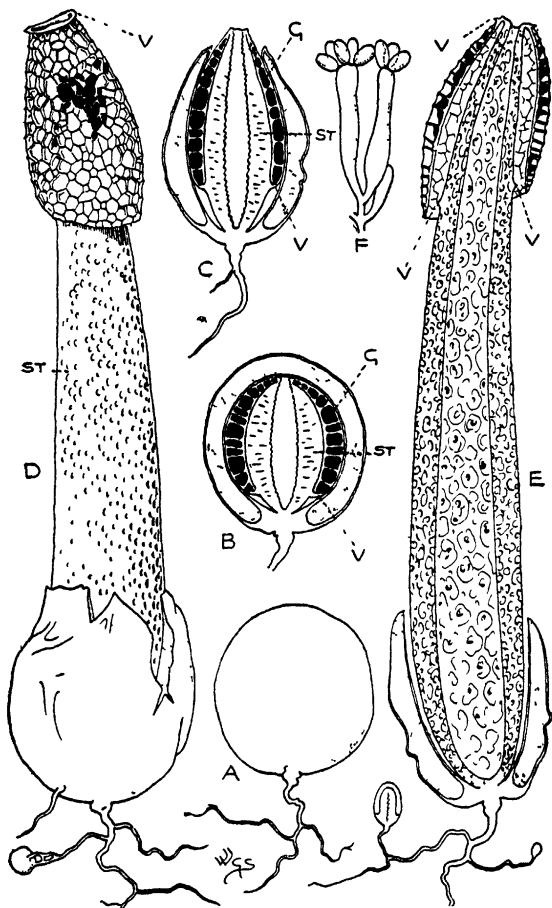


Fig. 123.—*Ithyphallus impudicus* Fisch. Two thirds natural size.

A young plant F section of ditto showing veil at V C ditto showing pileus emerging from volva veil at V D mature plant remains of veil at V E section of ditto F basidium and spores X 1000 C gleba ST stem or receptacle

CVIII MUTINUS Fr

(An appellation of Priapus)

Pileus adnate to the hollow, perforate or imperforate spongy stem, at first immersed in olive-brown sporiferous mucus *Vel*

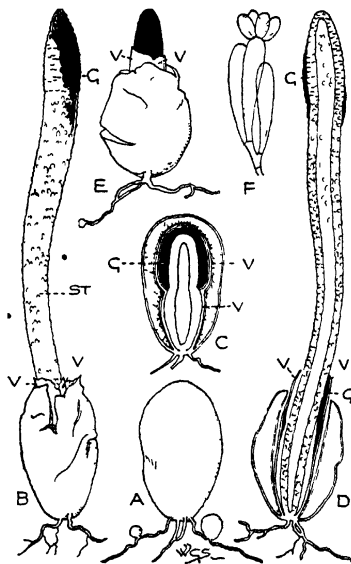


Fig 124 — *Mutinus caninus* Fr Two-thirds natural size.
 A young plant B mature plant C section of young plant D section
 of mature plant E pileus emerging from volva F bisidium and spore
 X 1000 G gleba ST stem or receptacle V veil

distinct, springing from the base of the stem within the volva, white
 (Fig 124) Species 2043, 2044

2043 *M caninus* Fr (*canis*, a dog) *a b c*

P short, subacute, rugulose, red *Ric* elongato-fusiform cellular,
 white or rosy When the receptacle first emerges from the
 volva it is covered with the white veil

Woods, bushy places rotten stumps, pine, ash, decayed leaves in woods and
 hedges June-Dec Height $5\frac{1}{2}$ in

2044 **M bambusinus** Fisch (from its original place of growth, at the base of bamboos, *bambusa*) *a*

P long, acutely conical tuberculose or rugose, dull purple *Rec* elongato-fusiform, imperforate, spongy-cellular, pallid rubiginous or rosy

Very fetid Height $5\frac{1}{2}$ in

CIX **CLATHRUS** Mich

(From the latticed receptacle *clathrus*, γ lattice)

Receptacle hollow, globose, latticed, the meshes at first filled and covered inside by olive-brown sporiferous mucus (Fig 125)

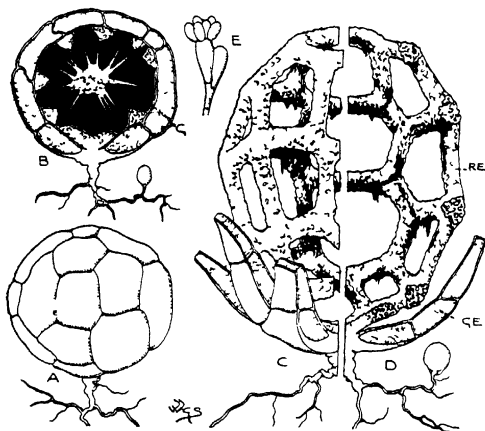


Fig 125 — *Clathrus cancellatus* Tournef. One half natural size
 A young plant B ditto in section C mature plant left half entire D ditto in section
 E basidium and spores $\times 750$ F gleba GE gelatinous stratum of volva RE receptacle

2045 **C cancellatus** L (from the lattice-like receptacle, *cancellatus*, latticed) *a b c*

Rec sessile, globose or ovate, the branches triangular in section with a flat face outwards, orange-vermilion outside, vermilion-crimson inside, inner sporiferous mucus dark olive, enclosing a central mass of soft dark gelatine *Vo* of two white membranes, marked internally and externally with lines corresponding with the lattice within *Myc* cord-like

Single or caespitose Highly fetid Plantations, gardens, stoves (Oct - Nov $4\frac{1}{2} \times 3\frac{1}{2}$ in The interior of the receptacle at length drips with olive brown mucus

CX LYSURUS Fr

(From the free tail-like lobes of the mature receptacle,
Gr *luo*, to loosen, *oua*, a tail)

Stipitate, pileus divided in vertical lobes, free at the apex,
distinct from the stem. Sporiferous mucus on the interior of the
lobes (Fig 126)

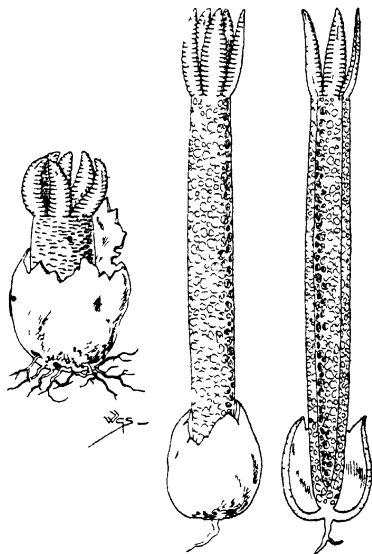


FIG. 126.—*Lysurus australis* Cooke & Mass. One half natural size. Young plant on left; mature plant and section on right.

2045a *L. AUSTRALIS* Cooke & Mass (from its native country—Australia)

P for the most part 5-lobed, lobes attenuate upwards, at first connivent, then somewhat reflexed, with a longitudinal depression along the middle, transversely rugose, tawny. *Rec* cylindrical, hollow cellular, whitish. *Vo* globose, lobed, white. Refuse of wheat, probably Australian, Kidderminster, Worcester 14 Nov., 1902. Carleton Rea. $6\frac{1}{2} \times \frac{1}{2}$ in.

FAM VIII LYCOPERDACEÆ

Peridium double, rarely single, gelatinous stratum absent Spores forming a powdery mass at maturity, mixed with a well-developed capillitium A very feeble membrane separating the gleba from the double outer peridium, may be detected in immature examples

Species 2046—2084

KEY TO THE GENERA

Peridium vertically compressed	Stoma apical	111	BATTARREA
Peridium subglobose			
Stoma apical		112	TULOSTOMA
Stoma none		113	QUIFEDIA
Exoperidium splitting in a stellate manner		114	GEASTER
Exoperidium breaking up in the form of warts or spines			
Base sterile		115	LYCOPERDON
Exoperidium flaking off in patches	Sterile base absent	116	BOVISTA

CXI BATTARREA Pers

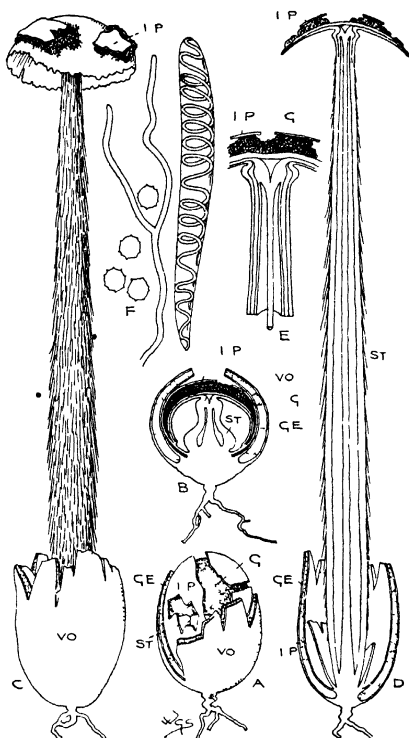
(After Antonio Battarra)

Volva universal, central stratum gelatinous *Peridium* vertically compressed, pileus-like, bursting through the volva and at length raised on a tall stem (Fig 127)

2046 B phalloides Pers (from a fancied resemblance to *Ithyphallus*, Gr *eidos*, appearance) *a b*

Pe convex, bearing the spores and capillitium, orange-brown
St hollow with a central pith of silky threads, wall of three layers, the outer broken up into coarse fibres pointing downwards, orange-brown *Vo* ovate formed of two white membranes with an internal gelatinous olive-yellow layer

In and near decayed trees, ash, on sandhills Dec $12\frac{1}{2} \times 2$ in When in the young state sometimes buried several inches deep in sand or decayed wood Sometimes 14 in high with a pileus $2\frac{1}{2}$ in in diam

Fig. 127 — *Battarreia phalloides* Pers. One half natural size

A, young plant bursting outer peridium or volva VO B section of ditto C mature plant
 D section of ditto E section of upper part of stem Natural size F threads of capillitium and
 spores X 750 G gleba with capillitium and spores H, gelatinous stratum I I, inner
 peridium ST, stem VO volva

CXII TULOSTOMA Pers

(From the structure of the mouth of the peridium,
Gr *tulos*, cartilage, *stoma*, a mouth)

Peridium subglobose, dehiscing by an apical stoma, outer coat, veil or cortex, deciduous, distinct from the at length elongate stem
Threads of the capillitium swollen at the septa (Fig 128)

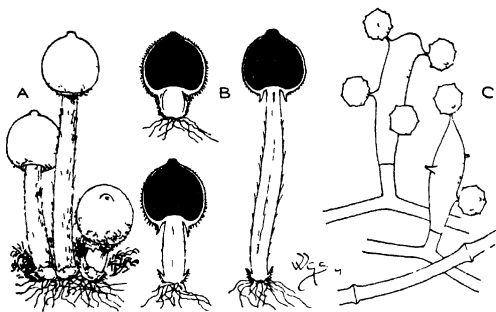


Fig 128 — *Tulostoma mammosum* Fr. 1, two-thirds natural size
A, entire plant B, sections C, basidia spores and thread of capillitium $\times 1000$

2047 T mammosum Fr (from the breast-like peridium, *mamma*, a breast) *a b c*

V universal, distinct at the base of *Pe* and at the lower part of *St*
Pe globose, at first sessile or nearly so, stoma mammiform, entire, ochre
St equal, squamose-fibrillose, ragged at the base with remains of *V*, somewhat pale vinous-brown

Amongst moss on old walls, dry banks, sandhills, etc (Oct - Feb) $2\frac{1}{2} \times \frac{1}{8}$ in
There are two forms, brown, with a stout stem, and yellowish white, with a slender stem Intermediate forms occur

CXIII QUELETIA Fr

(After Dr Lucien Quelet)

Peridium subglobose, simple, stoma none, the wall breaking up irregularly at maturity
Stem at length long, squarose, the base of the peridium breaking at the apex and forming a collar or veil
Spores borne on tetrasporous basidia (Fig 129)

2048 Q mirabilis Fr (from its unusual appearance, *mirabilis*, wonderful) *a*

Pe thin, even, glabrous, rigid, fragile, breaking away in irregular patches at maturity, whitish, then dull greyish *St* subclavate, fibroso-carnose, externally densely squarrose, whitish, brownish towards base

Gregarious $6\frac{1}{4} \times 2\frac{1}{4}$ in At first wholly subterranean

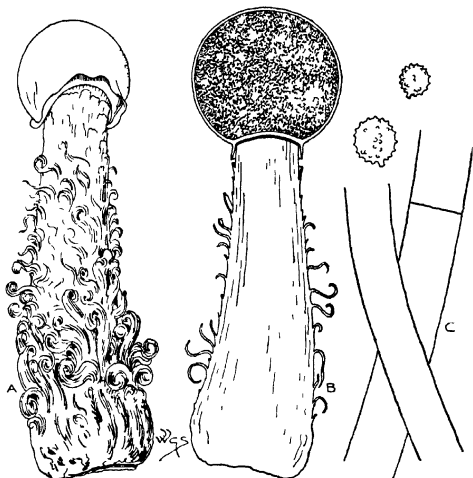


Fig. 129—*Queletia mirabilis* Fr. One half natural size A entire plant
B section C threads of capillitium and spores $\times 750$

CXIV GEASTER Mich

(From the star-like appearance of mature plants

G1 *ge*, the earth, *aster*, a star)

Peridium at first continuous, consisting of three layers, the two outermost—*exoperidium*—splitting from the apex in a stellate manner, the inner layer—*endoperidium*—sessile or pedicellate, furnished at the apex with one orifice, rarely more *Columella* prominent, rudimentary or obsolete *Capillitium* dense Terrestrial (Fig 130) Species 2049—2062

a *Myriostomata* *Endoperidium* with many orifices 2049

b *Menostomata* *Endoperidium* with a single orifice

Endoperidium pedicellate 2050—2054

Endoperidium sessile 2055—2062



Fig. 130.—A, B, *Geaster coliformis* Pers. entire and in section. One half natural size. C, threads of capillitium and spores. $\times 750$. D, E, (*Berkleyi* Mass.) entire and in section. One half natural size. F, thread of capillitium and spores. $\times 750$. G, H, *G. formicatus* Fr., entire and in section. One half natural size. J, thread of capillitium and spores. $\times 750$. K, L, *G. fimbriatus* Fr. entire and in section. M, young plant in section. One half natural size. N, thread of capillitium and spores. $\times 750$. O, basidium with spores and thread of capillitium of *G. rufescens* Pers.

a Myriostomata

2049 G coliformis Pers (from a fancied resemblance in the endoperidium to a colander, *colum*) *a b c*

Ex 7 to 10 segmented, unequal, pale umber *End* subglobose, scabrous, supported on numerous pedicels, pale slate *Col* usually obsolete or occurring as continuations of the pedicels *Gl* umber

Sandy banks Oct Diam of expanded *Ex* $5\frac{1}{2}$ in

b Monostomata

2050 G Bryantii Berk (after Charles Bryant) *a b c*

Lx 8- to 12-segmented, becoming involute, pale umber to warm brown *End* subglobose or obpyriform, with a distinct groove between *End* and *Ped*, dark purple-slate to warm umber, more or less whitish-farinosc *Per* elongate, conical, sulcate *Col* hemispherical *Gl* dark brown

Amongst leaves, under hedges, sandy places, on wood, dry marly banks, on the ground July-Feb Diam of expanded *Lx* $3\frac{1}{2}$ in Var *minor* Mass, under one inch when expanded

2051 G Schmidelii Vitt (after Casimir Schmidel) *a c*

Ex 5- to 8 segmented, revolute, white to ivory *End* subglobose, lead colour to pale salmon *Per* prominent, plicate, apex fimbriate, whitish *Col* large

On the ground in open places Diam of expanded *Ex* 2 in

2051a G umbilicatus Fr, var **Smithii** W G Sm, *G Smithii* C G Lloyd (after Worthington George Smith) *a*

Ex 7- to 8-segmented, unequal, sublanicolate, pale umber-ochre, shaded darker, limbs slightly vinous-sienna, externally pale umber *End* sessile globose, or depressed-globose colour as *Ex* with a tinge of olive *Per* conical plicato-striate in a circular depressed margined umbilicus *Gl* deep vinous-umber

Nov Diam of expanded *Ex* 1 $\frac{1}{2}$ in *Per* not like **2051**, but more like **2058** or **2057**

2052 G Berkeleyi Mass (after the Rev M J Berkeley) *a*

Ex 7- to 9-segmented, unequal, vinous-brown when dry, externally buff and umber *End* broadly ovate, shortly and stoutly pedicellate, coarsely farinose, pale brown *Per* prominent, conical, coarsely sulcate inside and out, surrounded by a smooth slightly depressed silky zone *Col* short, hemispherical *Gl* umber

On the ground, amongst fir leaves Oct Diam of expanded *Ex* $3\frac{1}{2}$ in According to Massee this species was confused by Berkeley with **2051** and **2055**— see the dried examples in the Kew herbarium

2053 G limbatus Fr (from the fringed or silky, fimbriato-ciliate peristome, *limbatus*, bordered, as with another colour) *a b c*

Ex multifid, unequal, vinous, scurfy and umber beneath *End* subpyriform to subglobose, shortly pedicellate, blackish-brown

to deep vinous-umber *Per* slightly depressed, subacute, fimbriato-ciliate, surrounded by a small pale silky disc *Col* almost obsolete *Gl* dark umber

Woods, hedgebanks, amongst firs, leaves Sept–Nov Diam of expanded Ex 4 in

- 2054 *G. fornicatus* Fr** (from the arched inner layer of the exoperidium, *fornicatus*, arched over) *a b c*

Ex 4- (rarely 5-) segmented, the two layers separating, outer cup-like, scurfy and brown externally, tan within, inner arched and attached to outer by tips of segments, umber, blackish-umber or rufous, tan within *End* obpyriform, shortly pedicellate, dark brown *Per* conical, ciliato-striate *Col* slender, somewhat clavate

Meadows, pastures, heaths, amongst firs Mar–Nov Diam of expanded Ex 2½ in 5½ in high

- 2055 *G. striatus* DC** (from the sulcato-striate peristome) *a b c*

Ex 6- to 9-segmented, coriaceous, thin, tan, darker externally *End* sessile, globose, often scabrous, umber-white to lead-colour *Per* prominent, conical sulcato-striate *Gl* brown

On the ground, sandhills amongst dead leaves, amongst trees, firs Mar–Nov Diam of expanded Ex 2 in

- 2056 *G. Michelianus* W G Sm** (after Piero Antonio Micheli) *a b c*

Ex 4- to 6-segmented, unequal, thick, warm or pale vinous, outside much cracked, brown *End* subglobose, tin-umber *Per* mammiform surrounded by a silky zone *Col* clavate *Gl* brown

On the ground, amongst rhododendrons Oct Diam of expanded Ex 5 in Differs from 2061a, for which it has sometimes been mistaken At maturity this plant will sometimes throw itself elastically some 9 inches from its place of growth

- 2057 *G. lagenæformis* Vitt** (from a fancied resemblance to a narrow-mouthed bottle or jar, *lagenæ*, a flask *forma*, shape) *a b c*

Ex 7- to 9-segmented, attenuate, subequal, salmon-white to ivory, pale rose or vinous *End* subglobose or ovate, pale buff, umber-white or faintly vinous *Per* broadly-conical, sides incurved, silky, striate, surrounded by a disc *Col* clavate *Gl* brown, somewhat olive

On the ground April–Nov Diam of expanded Ex 2½ in

- 2058 *G. saccatus* Fr** (from the sac or pouch-like shape when young, *saccus*, a bag) *a b c*

Ex 7- to 9-segmented, pale dove-colour, very pale yellowish-lavender or pale buff, externally umber and ochre *End* globose, colour as *Ex* *Per* broadly-conical, sides incurved, stoma fimbriate, silky, surrounded by a silky disc *Gl* dark brown

On the ground, amongst stones and earth, in hedges, sometimes on sticks with profuse Myc Aug Diam of expanded Ex 3½ in

- 2059 G mammosus** Chev (from the breast-like endoperidium, *mammosus*, full-breasted) *a b c*

Ex 7- to 10 segmented, hygrometric, strongly incurved when dry, vinous-brown to umber, ochreous or glossy yellow-white-umber outside *End* globose, white-brown *Per* broadly and acutely conical, fimbriato-ciliate to striate, surrounded by a pale silky disc *Gl* vinous or dark brown

On the ground Feb -Dec Diam of expanded *Ex* 1½ in

- 2060 G rufescens** Pers (from the at length rufescent colour) *a b c*

Ex 6- to 9-segmented, thick, becoming deeply cracked, brownish flesh-colour or red-salmon, clouded rufescent, externally dark sienna or sienna-buff *End* globose, pale to dark umber, stoma slightly mammiform, dentate *Col* obsolete or short *Gl* dark brown

Woods, pastures Sept -Dec Diam of expanded *Ex* 4½ in *Var minor* Pers, 5-8 segmented, less than half the size of type

- 2061 G fimbriatus** Fr (from the fimbriate mouth of the peristome) *a b c*

Ex 5- to 15-segmented, flaccid, somewhat thick, buff- or umber-white with white cracks *End* subglobose, pale umber, stoma indeterminate, piloso-fimbriate *Col* obsolete *Gl* brown

Woods, pine, on the ground amongst leaves Aug -Dec Diam of expanded *Ex* 2½ in

- 2061a G triplex** Jungh (from the superficial appearance, as of three peridia) *a*

Ex 5 to 6-segmented, the fleshy inner layer often becoming detached and forming a spurious peridium at the base of the *End*, vinous-brown *End* globose, with a definite even stoma, yellow-brown *Col* prominent, persistent

Woods, fields Diam of expanded *Ex* 4½ in When young this plant is pouch like with an acute apex as in 2058 and greatly differs in this respect from 2056, where also the colours of the peridia are the reverse of 2061a

- 2062 G hygrometricus** Pers (from its absorption of moisture from the air *Gr* *hugros*, moisture, *metron*, a measure) *a b c*

Ex 7- to 20-segmented, harsh and horny, vinous-brown, yellowish-brown outside, rigidly inflexed when dry, and often cracked all over *End* ovato-globose in section, floccose, crimson-brown or purple-lavender, stoma irregularly torn *Col* obsolete *Gl* crimson-brown

On the ground Woods, pine Feb -Dec Diam of expanded *Ex* 2½ in

CXV LYCOPERDON L

(From an old belief that puff-balls grew from the dung of the wolf, *Gr* *lukos*, a wolf, *perdon*, dung)

Peridium double, external layer or cortex becoming broken up into spine-like tufts or warts, inner layer smooth dehiscing by a small

apical stoma, the whole of the upper portion being sometimes evanescent. Sterile base usually stem-like (Fig 131)

The species are remarkable for their variability in size, very small mature examples of all the species being frequent. They are popularly named "Puff-balls" and "Devil's snuff-boxes"

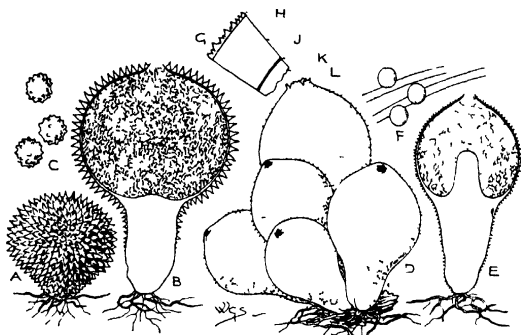


Fig. 131.—A, B, *Lycoperdon echinatum* Pers. young plant entire and mature plant in section. One half natural size. C, spores $\times 750$. D, E, *L. pyriforme* Schaff. entire and in section. One half natural size. F, spores and threads of capillitium $\times 750$. G, section through cortex of *L. gemmatum* Batsch $\times 5$. H, outer scurfy coat. I, inner coat. J, thin membrane over gleba. L, gleba.

Some of the species are dangerous if eaten in a raw state: rapid inflammation of the throat and a greatly swollen tongue have been known to ensue. This is probably also true of species of *Borista*.

Species 2063—2077

Spores rough 2063—2068

Spores smooth 2069—2077

2063 *L. echinatum* Pers (from the hedgehog-like spines of the peridium *echinus*, a hedgehog) *a b c*

Pe globose, usually passing into a stout stem, sometimes stemless, at first covered with large pyramidal floccose spines, vinous-brown varying buff, stoma small, irregularly torn, base usually clad with white thread-like Myc. *St* spongy-cellular within. *Cap* and *Spores* deep vinous-brown.

Usually solitary. Amongst trees, beech. Mar–Oct. Diam $2\frac{1}{2}$ in. Sometimes made a var. of 2068.

2064 *L. Hoylei* B & Br (after Mr Hoyle, who first brought the plant to the notice of the Rev M J Berkeley) *a b c*

Pe subglobose, passing into a short stem, at first covered with pyramidal floccose spines, purple-brown, stoma small, irregularly

torn, base usually clad with white thread-like Myc. *St* lacunose, spongy-cellular and olivaceous within. *Cap* and *Spores* light in colour, pale purplish-brown, but described by Berkeley as lilac.

Woods, amongst leaves. Oct–Dec. Diam $1\frac{1}{2}$ in. Perhaps a form of 2068.

2064a L. velatum Vitt (from the external layer of the peridium forming a universal veil, *velum*, a covering) *a b*

Pe pyriform or subglobose, slightly umbonate, outer layer tomentose, breaking up into evanescent star-shaped rosettes and forming a false ring-like appearance at the apex of the stem, at length almost completely disappearing, snow-white, inner layer furfuraceous and furnished with very thin short spines, white then delicate flesh-colour, finally greyish. *St* with white cord-like Myc., white. *Cap* and *Spores* white, then fulvous, finally ash.

Amongst leaves. Oct. $2\frac{1}{2} \times 1\frac{1}{8}$ in.

2065 L. atropurpureum Vitt (from the blackish-purple capillitium and spores, *atrus*, black) *a b c*

Pe subglobose or pyriform, at first covered with slender spines, warm yellowish-brown or rufous, stomi small, irregular. *St* plicate below, spongy-cellular and pale dull purple within. *Cap* and *Spores* dull to blackish-purple.

Downs, woods, under oaks. Sep–Nov. Diam $1\frac{1}{2}$ in.

2066 L. excipuliforme Pers (from a fancied resemblance to a basin, *excipula*) *a b c*

Pe subglobose, usually passing into a long, stout stem, rarely almost stemless, at first covered with slender spinose warts, white to ivory. *St* even, somewhat plicate below, sometimes lacunose, spongy-cellular and pale olive within. *Cap* and *Spores* dull olive or yellowish-brown.

Pictures, woods under firs. May–Nov. Diam $3\frac{1}{2}$ in. Sometimes $7\frac{1}{2}$ in high. Sometimes confused with or made a var. of 2068, 2070 or 2071, the two latter have smooth spores.

2067 L. saccatum Fr (from a fancied resemblance to an inverted sac or bag, *saccus*) *a b c*

Pe subglobose, passing into a long stout stem, plicate below, at first covered with spinulose warts, brownish-ivory, stomi small, irregular. *St* often more or less lacunose, spongy-cellular and yellowish-olive within, brownish below. *Cap* and *Spores* yellowish-brown.

Often in rings of very large size, individuals a foot apart. Open places, near pines, in and near thickets. Aug–Oct. Diam 4 in. Often 8 in or more high.

2068 L. gemmatum Batsch (from the peridium covered with pointed warts, *gemma*, a young bud) *a b c*

Pe subglobose, usually passing into a stem, rarely stemless, at first covered with small pointed spines, pale brown. *St*

tapering downwards, coarsely spongy cellular and faintly olive within *Cap* and *Spores* olivaceous- to dark-umber

- Woods, shady places, pastures, from the decayed interior of an acorn
Sept-Nov $2\frac{1}{2} \times 3\frac{1}{2}$ in Sometimes confused with 2071, of which 2068
has been considered a variety but in 2071 the spores are smooth, while in
this they are minutely warted or spiny

2069 L. lacunosum Bull (from the pits or depressions on the stem, *lacuna*, a hole or cavity) *a*

Pc subglobose, passing into a long stout stem, covered with small pointed spines, pale buff *St* tapering downwards covered with small lacunæ *Cap* and *Spores* olive-brown

Woods Autumn $1\frac{1}{2} \times 4\frac{1}{2}$ in

2070 L. pyriforme Schaef (from its pear-like shape, *pyrus*, a pear, *forma*, shape) *a b c* Subumbonate

Pc thin, flaccid, at first covered with minute pointed warts, brown, stoma small, torn, base sometimes forming a Col, slightly cellular *Cap* and *Spores* olive

Commonly caespitose, often held together by coarse strands of white Myc
On the ground in fields and woods, on rotten stumps and branches,
pollards, oak July-Nov $1 \times 2\frac{1}{2}$ in Col not a permanent character

2071 L. perlatum Pers (from the great width of the peridium in comparison with the slender stem *perlatus* very wide) *a b c*

Pc subglobose or flattened, often passing into a somewhat slender stem umbonate, often plicate below, at first covered with stout obtuse short spines base sometimes forming a Col, pale brownish-salmon, stoma small *St* slightly spongy-cellular and in section convex above *Cap* and *Spores* olivaceous

Woods, thickets, amongst trees, firs Sept-Nov $2\frac{1}{2} \times 5$ in Col not a permanent character Sometimes made a var of 2068 or 2068 is sometimes made a var of this, but the spores are different

2072 L. molle Pers (from its softness or soft scurfy surface, *mollis*, soft)

Turbinate, base broad, abrupt *Pc* papyraceous at first furfuraceous, collapsing, umber to olive, stoma small, irregular *Cap* collapsing, ochreous-olive Sterile base well developed, slightly spongy-cellular

On the ground, woods, oak $1\frac{1}{2} \times 2\frac{1}{2}$ in Differing from 2068 in the smooth spores

2072a L. cruciatum Rost (from the somewhat cross-shaped spines of the cortex) *a*

Pc subglobose to broadly pyriform, narrowed below into a short stout sterile stem-like base, $1\frac{1}{2}$ – $1\frac{1}{2}$ in high by $\frac{3}{4}$ – $1\frac{1}{4}$ in broad *Cor* whitish, formed of groups of minute, more or less pyramidal spines, breaking away in large flakes and exposing the inner yellowish brown minutely granulated peridium, dehiscence by a small irregularly torn apical stoma *Gl* umber *Spores* globose, smooth, almost hyaline, 5–6 μ in diam ,

threads of capillitium mostly unbranched, slender, 4-5 μ thick, ends tapering, very slightly coloured yellow-brown. The lacunose sterile base not projecting into the Gl as a Col.

On the ground among hazel bushes $1\frac{3}{4} \times 1\frac{1}{4}$ in. Whitish outer wall of peridium peeling off in large flakes as in species of *Bovista*, exposing the brown, minutely granulated inner Pe.

- 2073 L. hiemale** Bull (from its time of growth, winter, *hiems*) *a b c*
Pi pyriform, rarely almost sessile and globoso-depressed. *Pe* membranous, flaccid, white then grey, yellowish or rufescent, stoma irregularly lacerate. *Cap* and *Spores* smoky-yellow to olive-brownish. Sterile base well developed, at first verrucoso-angulate, elastic-tough with a thick bark.

Fields, downs, amongst dead leaves. Sept-Jan $2\frac{1}{2} \times 3\frac{3}{8}$ in.

- 2074 L. caelatum** Bull (from the large conical warts of the peridium as if embossed or carved in bas-relief, *caelum*, a sculptor's chisel) *a b c*

At first subglobose or pyriform, then depressed, flaccid and ruptured above, contracted below into a short stout tapering stem and more or less covered with large conical warts, whitish or ivory. *Cap* and *Spores* ochreous-olive or opaque yellow-green. Sterile base spongy-cellular.

Odour disagreeable, musty, mouse-like. Fields, woods, grassy roadsides. May-Oct $7\frac{1}{2} \times 6\frac{1}{2}$ in.

- 2074a L. depressum** Bonard (from the depressed peridium) *a*

Pi obconical, at first rounded above then flattened, base somewhat plicate, yellowish-white, then greyish-yellow, finally brownish, covered with spinulose warts. Stoma at first well defined, greatly extending with age. Sterile base well developed, separated from the olive Gl by a diaphragm.

Commons, woods. Aug-Oct $1\frac{1}{4} \times 1\frac{1}{4}$ in.

- 2075 L. Bovista L** (from the resemblance to *Bovista*) *a b c*

Globose, sessile, usually plicate at base, at first subtomentose then smooth and glossy, white, stoma large, irregular. *Cap* and *Spores* dull olive or olive-umber.

Sometimes grows in rings 30-50 ft in diam. Edible when young and perfectly white within. Rich pastures, orchards, gardens, roadsides, grassy places. Aug-Oct 12×11 in. Popular names "Puff ball" and "Devil's snuff box". Modern Greek name "kranion," like a skull. A drawing in British Museum shows a diam of 18 in. A weight has been recorded of 20 lbs. An American example has been described with a larger diam of 5 ft 4 in and a lesser of 4 ft 6 in, height 9 $\frac{1}{2}$ in.

- 2076 L. furfuraceum** Schæff (from the branny or scurfy peridium, *furfur*, bran) *a b c*

Pi subglobose, passing into a short, stout stem, flaccid above, floccose, white then pale olive-yellowish, base white. *Cap* and *Spores* olivaceous. Sterile base spongy-cellular, white.

Fields, fallow ground, old walls, about stumps. Sept $1\frac{3}{4} \times 1\frac{3}{8}$ in.

2077. L. Cookei Mass (after Dr M C Cooke) *a c*

Subglobose or flattened below and hemispherical, abruptly contracted into a short stem, minutely furfuraceous, smoky-brown, umber-salmon or umber with a faintly purplish shade. *St* pale spongy cellular within. *Cap* and *Spores* yellow- to olive-umber.

Gregarious Sept $1\frac{1}{2} \times 1$ in Like a small form of 2071

CXVI BOVISTA Pers

(From the German popular name, *bofist*, a fairy ball)

Peridium double, external layer or cortex smooth, fragile, deciduous, not remaining as adnate warts, except in 2081 and 2083

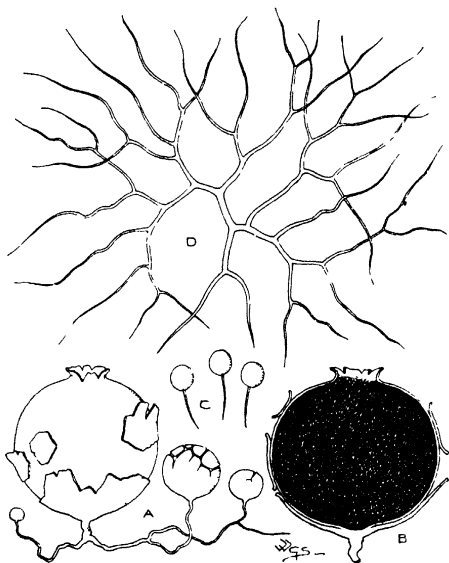


Fig 132 —A, B, *Bovista nigrescens* Pers. entire and in section One half natural size
C, spores $\times 750$ D thread of capillitium $\times 100$

usually falling away in flakes, inner layer smooth, dehiscing by a definite or irregularly torn apical stoma. Sterile base absent. *Spores* globose or elliptical (Fig 132) Species 2078—2084

Spores globose

2078—2083

Spores elliptical

2084

- 2078 B plumbea** Pers (from the lead-coloured inner layer of the peridium, *plumbeus*, leaden) *a b c*

Globose *Cor* thin, whitish, persistent towards base, inner layer tough, thin, dehiscing by a small irregular somewhat prominent stoma, lead-colour, slate-whitish or purplish-slate *Cap* and *Spores* brown

Div grassy and heathy places, downs, rarely on stumps July-Nov
1½ × 1½ in

- 2079 B nigrescens** Pers (from the at length black or blackish colour of the inner layer of the peridium, *nigrescens*, turning black) *a b c*

Subglobose *Cor* papery, whitish, inner layer thin, tough, dehiscing by an irregular somewhat prominent stoma, blackish, brown-, slate-, olive-brown- or blue-black *Cap* and *Spores* olive-brown then purplish-brown

Dry pastures, heathy places Jan-Dec 2½ × 2½ in

- 2080 B olivacea** Cooke & Mass (from the at length olive-coloured capillitium and spores) *a c*

Globose *Cor* thin, fugacious, whitish or ochreous, inner layer thick, soft, becoming brittle and breaking away in patches above, white or ochreous *Cap* and *Spores* citrine then olive

On the ground Sept 2 × 2 in

- 2081 B ammophila** Lev (from the habitat, sandy places, *Gr ammes*, sand, *phileo*, to love) *a*

Broadly obovate, plicate below and tapering into a long stout root-like growth *Cor* broken up into tomentose warts, whitish, inner layer thin, dehiscing by a small irregularly torn stoma, pallid *Cap* and *Spores* olive

Sandy places Sept 1½ × 1½ in without root

- 2082 B cepæformis** Mass (from the shape, like a flat onion, *capa*, an onion, *forma*, shape) *a*

Subglobose, flattish, somewhat plicate below *Cor* minutely furfuraceous, whitish to very pale buff, inner layer dehiscing by a small torn stoma, whitish or pale buff *Cap* and *Spores* citrine *Myc* rooting, cord-like

On the ground 1½ × 1½ in

- 2083 B pusilla** Pers (from the very small size, *pusillus*, small) *a b*

Subglobose *Cor* breaking up into minute scurfy squamules, pale yellowish-brown, inner layer flaccid, dehiscing by a small stoma, pale yellowish brown or olivaceous ochre *Myc* cord-like, rooting

Pastures, hedgebanks ¾ × ¾ in

- 2084 B ovalispora** Cooke & Mass (from the oval spores) *a b*

Subglobose *Cor* very thin, subpersistent towards base, whitish or ochreous, inner layer thin, flaccid, smooth, dull lead-colour, dehiscing by an irregular stoma *Cap* and *Spores* brown

On the ground Diam 2 Formerly included with 2078 and 2079, but differing in the oval spores and thinner cortex

FAM IX SCLERODERMACEÆ

Peridium thick with a well-defined base, sometimes forming a stem, opening at the apex in an irregular manner, feebly developed with a sterile base. Capillitium absent or scanty. Species 2085—2089

KEY TO THE GENERA

Gleba composed of numerous distinct cells containing peridiola	117	POLYSACCU M
Gleba cellular, cells without peridiola	118	SCLERODERMA

CXVII POLYSACCUM DC

(From the many small cells within the peridium,
Gr *polus*, many, *saccos*, a bag)

Peridium irregularly globose, corky, attenuate downwards into a more or less elongated stem-like base, dehiscing by an irregular

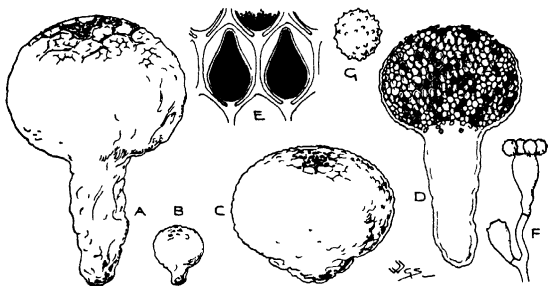


Fig 132 —A, B, C, D *Polysaccum pisocarpium* Fr. entire and in section. (One half natural size. E, section through part of gleba showing cavities and enclosed peridiola. $\times 5$. F, b, peridia and spores. $\times 250$. G, spore. $\times 750$.)

rupture of the apex. *Gleba* consisting of numerous cells, each containing a peridiolum. *Peridiola* at first saccate or irregularly ovoid, sometimes filling the cell and becoming irregularly polygonal (Fig 133)

2085 P pisocarpium Fr (from the pea-like peridiola, *pisum*, a pea, *carpellum*, a fruit) a b

Pc irregularly globose or ovate, smooth, subtuberculose, corky, attenuate downwards into a more or less stem-like base, or

sessile or nearly so, pale to olive-umber, base spongy-cellular within *Gl* composed of numerous cells, each containing an olive-umber Peri *Spores* dark brown
On the ground May $2\frac{1}{2} \times 3\frac{1}{2}$ in

CXVIII SCLERODERMA Pers

(From the hard skin or peridium, Gr *scleros*, hard, *derma*, skin)

Peridium firm, cortex persistent in the form of warts, scales or granules, indehiscent or breaking up in an irregular or more or less

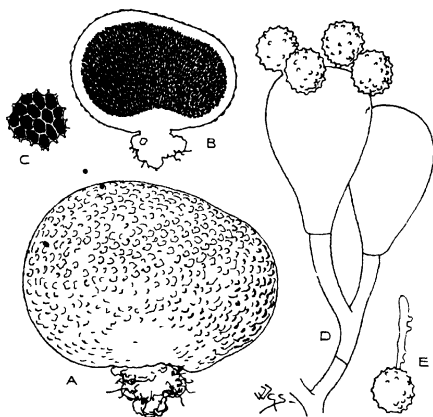


Fig 134 — A 1 *Scleroderma vulgare* Hornem entire and in section One half natural siz.
C cells of gleba $\times 5$, D, bisidia and spores F spore germinating $\times 750$

stellate manner, convex internally at base *Gleba* cellular, subpersistent, without peridiola *Trama* in the cell walls (Fig 134)

The peridium is frequently and extensively perforated by larvæ which eat the spore-mass and help to disseminate the spores

Species 2086—2089

2086 *S vulgare* Hornem (from its commonness *vulgaris*, common) a b c

Subsessile, often lobed below and usually slightly depressed above, ovate, reniform in vertical section *Pe* thick, corky, verrucose or adpressed-scaly, pale warm-brown, scales darker *Gl* dark slate-colour *Trama* white

Often capitate Under the name of "vegetable tripe" it has been eaten when quite young and found not poisonous Used for the adulteration of pâte de

foie gras, sausage and poulard truffle in place of the French truffle, *Tuber macrosporum*. Odour rank, strong, disagreeable, sulphureous alliaceous. Open places near trees. Aug–Nov. Diam $3\frac{1}{2}$ in. Often closely resembles horse droppings. Sometimes attacked by 1481, which in turn is not infrequently attacked by *Hypomyces luteovirens*. Pigs in search for truffles and pig nuts will not eat *Scleroderma*. Sometimes $5\frac{1}{2}$ inches in diam. Var *cepa* W. G. Sm., *Scleroderma cepa* Pers. Flattish, onion shaped. Var *lucigatum* Fuck. nomen. Lvcn., smooth, often confounded with var *cervinum* (Bolt. Hist. Fung., t. 116). Var *aurantiacum* W. G. Sm., *Lycopericon aurantiacum* Bull. Brassy yellow. Var *spadiceum* W. G. Sm., *Scleroderma spadiceum* Pers. Date brown. Var *cervinum* W. G. Sm., *Scleroderma cervinum* Pers. Usually less than an inch in diam., hard and granular all over, resembling *Elaphomyces granulatus*, of which species it is sometimes, without examination, placed in herbaria as a var. Fir woods. Probably a distinct species.

2087 S verrucosum Pers (from the warted peridium, *verrucosus*, full of warts) *a b c*

Subsessile to stipitate. *Pi* subglobose, thin, fragile and breaking up irregularly above, externally finely squarrose or minutely warted, when stipitate continued into a more or less elongate and sometimes lacunose stem, ochraceous or dull brownish. *Gl* at first umber, then slate-colour to blackish. *Trama* whitish. Often furnished with a mass of *Myc* at base.

Sandy ground, commons, open places, near bushes. July–Nov. $3\frac{1}{2} \times 5$ in. Sometimes attacked by 1481.

2088 S Bovista Fr (from its resemblance to a *Bovista*) *a b c*

Subsessile, globose. *Pi* thin, plant breaking up irregularly above, becoming nearly smooth, yellowish. *Gl* yellowish- or olive- to purplish-brown. *Trama* yellow. Usually furnished with a mass of *Myc* at base.

Sandy ground near bushes. Sept. Diam $2\frac{1}{2}$ in.

2089 S Geaster Fr (from a fancied resemblance to a *Geaster*) *a v c*

Sessile globose. *Pi* thick, almost smooth, splitting and expanding in an irregularly stellate manner, dull yellowish-brown. *Gl* umber to pale and then dark slate. *Trama* whitish. Sometimes with a mass of *Myc* at base.

Sandy places, stubble fields, woods, under oaks. Aug–Oct. Diam 3 in.

FAM X NIDULARIACEÆ

Spores produced in the interior of one or more indehiscent globose or compressed peridiola or sporangia which are at first contained within a peridium.

Species 2090–2098

KEY TO THE GENERA

Peridiola several

Peridiola attached by a funiculus or cord to the wall of the peridium

Peridium of three layers, cup shaped

119 CYATHUS

Peridium of two layers, outer thick and felt like, inner thin, cup shaped

120 CRUCIBULUM

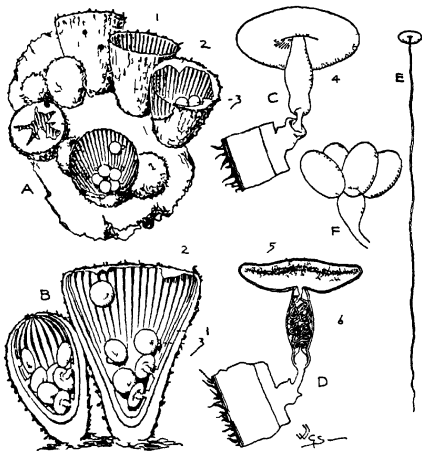
Peridiola not attached by a funiculus to the wall of the peridium Peridium of a single membrane, globose

121 NIDULARIA

Peridiola solitary, ejected from the peridium Peridium globose, subglobose or urceolate, sessile

122 SPHÆROBOLUS

CXIX CYATHUS Haller

(From the cup-shape, Gr *kuathos*, a wine cup)*Peridium* cup-shaped, composed of three distinct, closely connected layers, apex at first closed with a white membrane or epiphragm,Fig 135—*Cyathus striatus* Hoffm

A, group of plants Natural size B section of young and mature plants $\times 10$ C peridiolus D section of ditto $\times 10$ E peridiolus with the filiform appendage 6 of fig D; uncoiled and drawn out of the funiculus $\times 3$ F basidia and spores $\times 500$ G peridium H epiphragm I peridiola J funiculus K, hymenial layer, lining peridiolus L filiform appendage coiled within the funiculus

becoming broadly open *Peridiola* compressed, umbilicate, attached to inner wall of peridium by an elastic cord or funiculus (Fig 135)

The British species grow in fields and gardens, generally on chips, twigs and rotten wood, some foreign species grow on dung of horse and cow, and on bagging, matting, coffee-chaff, etc Species 2090, 2091

2090. *C striatus* Hoffm (from the striate inner surface of the peridium) *a b c*

Obconical, truncate at base and apex, striate and shining lead-colour within, hirtotomentose and ferruginous without *Peri* subcircular, biconvex, lead-colour *Fun* whitish, containing a long filiform appendage within Springing from coarse brown Myc

Fasciculate Fields, woods, gardens, decaying twigs, wood, old willow, fir cones, coco nut fibre Feb-Nov $\frac{3}{4} \times \frac{1}{8}$ in

2091 *C vernicosus* DC (from the silky-shining outer surface of the peridium, *vernicosus*, shiny as though varnished) *a b c*

Campanulate, undulate, tapering downwards to a narrow base, inside smooth, lead-colour or brownish, outside minutely silky, ferruginous, ochreous or greyish *Peri* circular, biconvex, blackish or blackish-brown *Fun* white

On the ground, stubble fields, gardens, flower pots, flower boxes, rotten wood, chips Feb-Sept $\frac{1}{4} \times \frac{1}{4}$ in

CXX CRUCIBULUM Tul

(From a fancied resemblance to a small melting-pot, *crucibulum*)

Peridium cup-shaped, consisting of two layers, the outer thick and felt-like, the inner a thin membrane which is at first continuous over

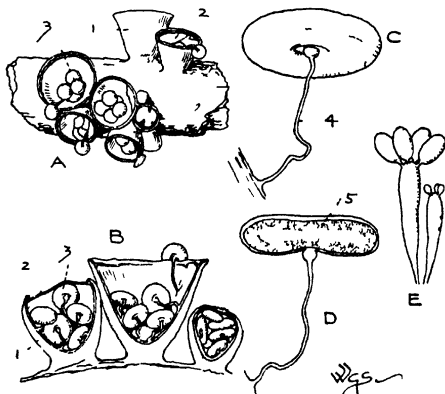


Fig 136 —A, *Crucibulum vulgare* Tul $\times \frac{1}{2}$ B section showing young and mature examples $\times 3$ C peridium D section of ditto $\times 12$ E basidia and spores $\times 660$ 1, peridium 2, epiphragm 3, peridiola 4, funiculus 5, hymenial layer lining peridium

the apex as a flat epiphragm *Peridiola* numerous, attached to the inner wall of the peridium by a long cord which originates from a depression in a central nipple-like tubercle on the under side of the peridium (Fig 136)

2092 *C. vulgare* Tul (from its commonness, *vulgaris*, common) *a b c*

Pe thick, sienna-white, cinnamon or greyish, externally minutely tomentose, internally smooth and shining *Peri* circular, biconvex, pale ochreous or sienna-white

Rotten branches, planks, twigs, chips, cones, herbaceous stems, grass, rotten straw, dead fern fronds Oct–Nov $\frac{3}{8} \times \frac{1}{4}$ in

CXXI NIDULARIA Bull

(From a fancied resemblance to a nest, *nidus*)

Peridium globose, consisting of a single membrane, at first closed then opening by a more or less regular mouth or becoming irregularly

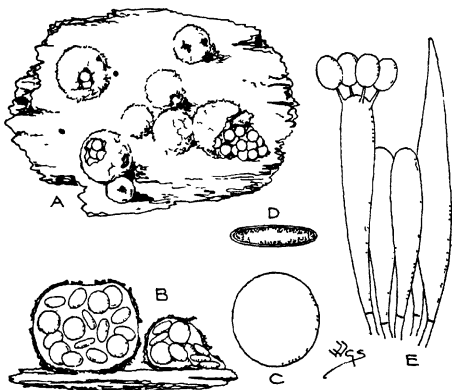


Fig 137—A *Nidularia pisiformis* Tul $\times \frac{1}{2}$ B sections showing peridiola embedded in mucus $\times 3$ C D, peridium and section $\times 12$ E, basidium with spores cystidium and the smaller cells of hymenial surface $\times 660$

ruptured, containing numerous peridiola enveloped in mucus, not attached to inside by a funiculus The mucus arises from disintegration of hyphae (Fig 137) Species 2093–2095

2093 *N. pisiformis* Tul (from the pea-like shape, *pisum*, a pea, *forma*, shape) *a b c*

Pe turbinate, strigose, tuberculose, splitting irregularly, cinnamon, pale buff or salmon *Peri* subrotund, biconvex, smooth, shining, brown

Gregarious or solitary Dead branches, chips, leaves, pine, sometimes on the

ground, woods May-Oct $\frac{5}{16}$ in Spores $7-8 \times 8-9 \mu$ Var *Brooma* Mass, on pine wood Spores $10 \times 4-5 \mu$

2094. N Berkeleyi Mass (after the Rev M J Berkeley) *a*

Pe subglobose, thick, hirt-tomentose, bright cinnamon *Peri* orbicular, biconvex, smooth, shining, bright brown

Solitary or 2-3 together Twigs, woods $\frac{5}{16}$ in

2095 N confluens Fr (from the confluent habit) *a b c*

Pe subglobose, thin, villous, whitish or buff-white *Peri* orbicular, compressed, pale yellowish-umber to chestnut

Putrid leaves, twigs, chips, wood, rarely on the ground Oct

CXXII SPHÆROBOLUS Tode

(In reference to the ejection of the peridiolum from the peridium, Gr *sphaira*, a ball, *ballo*, to throw)

Peridium globose, subglobose or urceolate, sessile, *peridiolum* solitary, ejected from the peridium (Fig 138) Species **2097, 2098**

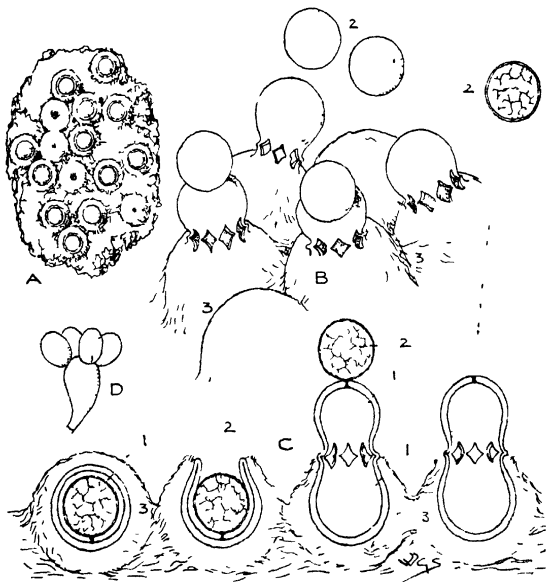


Fig 138 —A *Sphaerobolus stellatus* Tode $\times 3$ B, group of ditto C sections of young and mature examples $\times 12$ D, basidium and spores $\times 660$ 1, peridium of two coats 2 peridiola 3, mycelium

Peridium globose, of two layers, the inner at length extruded elastically and ejecting a single peridiolum 2096, 2097

Peridium homogeneous, sessile on a broad base, subrotund then urceolato-ventricose, *peridiolum* extruded from the apex of the peridium 2098

2096 **S stellatus** Tode (from the stellate mouth of the peridium)
a b c

Pe minutely tomentose, at first immersed in a thick web of white Myc, opening above in a 5- to 7-stellate manner, elastically extruding the inner layer and ejecting a globular yellowish or orange peri, pale yellow or pale yellowish-buff, darker or orange within. The peri which encloses basidia and spores is ejected for 8 or more inches with a slight clicking sound.

Usually crowded in troops. Rotten wood, sawdust, earth of old stumps, twigs, leaves, rotten grass. Often in stoves and greenhouses. Jan-Dec. Diam $\frac{1}{10}$ in.

2097 **S dentatus** W. G. Sm (from the toothed peridium, *dentatus*, toothed) *a*

Pe finely pilose with erect hairs, springing from scanty brownish Myc, opening above in a 4- to 7-stellate manner, the rays clad with long white hairs, which at first converge over the opening, outside pale livid-buff to vinous-brownish, pale brown or brown, inside white, ivory, white-greyish or faint olive-ivory, ejecting a reddish-brown peri.

Scattered. Dead elder. Failand, Bristol, Aug 1888, K. Baker. Diam $\frac{1}{8}$ in.

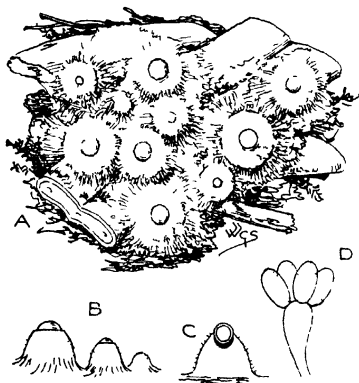


Fig. 179.—*Sphaerobolus terrestris* W. G. Sm.
A, seen from above. B, seen from side. C, section. $\times 12$. D, basidium and spores. $\times 660$.

2098. *S. terrestris* W G Sm, *Thelebolus terrestris* A & S—not of Tode—(from the frequent habitat, the earth, *terrestris*, pertaining to the earth) *a b c*

Pe at first hemispherical, saffron-yellow honey-colour or sienna, seated on a dense tomentose Sub of buff-white here and there brownish Myc *Peri* spherical, colour as *Pe*

Crowded in troops Earth, leaves, pine, moss, rotten wood, oak Mar -
Nov Diam $\frac{1}{16}$ in

FAM XI HYMENOGASTRACEÆ

Subterranean Peridium indehiscent Capillitium absent
Spores 2-7 Species 2099-2122

KEY TO THE GENERA

Spores globose warted		
Sterile base of peridium well developed	123	OCTAVIANIA
Sterile base of peridium absent	125	HYDNANGIUM
Spores smooth		
Sterile base of peridium absent		
Gleba cartilagineo glutinous	Spores elliptical	124 MELANOGASTER
elliptical	Spores minute,	126 HYSTERANGIUM
Peridium with root like fibres on the surface		127 RHIZOPOGON
Spores large, elliptical or fusiform, rugulose or nodulose		
Sterile base of peridium well developed	128	HYMENOGASTER

CXXIII OCTAVIANIA Vitt

(After Dr Vincent Ottaviani)

Peridium continuous or cracked, cottony, running down into a well developed sterile base *Trama* byssoid, easily divisible, cells at first empty, peripheral cells small, spherical, central cells much larger and irregular *Spores* 2-7, globose, warted (Fig 140)

Distinguished from *Hydnangium* by the presence of a sterile basal stratum and from *Melanogaster* in the cavities of the gleba being at first empty and the trama byssoid Species 2099-2101

2099 *O. asterosperma* Vitt (from the star-shaped spores, Gr *aster*, a star, *sperma*, a seed) *a b c*

Globose, regular or irregular *Pe* continuous or cracked into areolæ, minutely downy, at first whitish-buff, then rosy-salmon, clouded umber *Gl* salmon, slightly buff, cells umber

Generally near the surface, often partially exposed Odour sweet, of *Ocimum basilicum*, sometimes of new cheese or pungent Adhering to buried

twigs and leaves Oct Diam $1\frac{1}{2}$ in Changing to turquoise blue and black where bruised Commonly attacked by a bright orange mould, *Sepedonium chrysospermum*

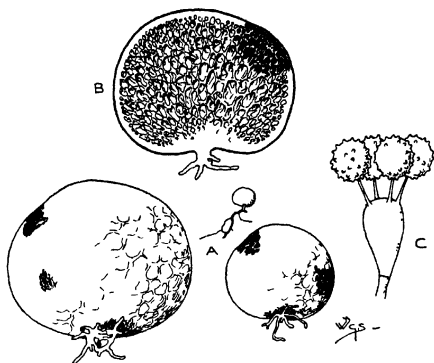


Fig 140 —A, B *Octaviania ustrosperma* Vitt, entire at different ages, and in section
Natural size C basidium and spores X 500

2100 *O. Stephensii* Tul (after H O Stephens) *a b c*

Irregularly globose or nodular-oblong, usually irregular in shape, base rugoso-plicate, cribose, furnished with branched fibrous root-like growths *Pe* continuous, pale red to rufous, clouded darker *Gl* white then pale salmon, cells small, pale sienna

Odour disagreeable like 1280 About one quarter of the plant is usually seen above ground, but often wholly superficial, covered with dead leaves, etc Woods under lime trees with *Noctoc* Aug-Dec Diam $1\frac{1}{2}$ in Exuding a white aromatic milky juice

2101 *O. compacta* Tul (from the compact substance) *a b c*

Irregularly subglobose, minutely cottony *Pe* continuous or slightly granular, white to ochreous-white *Gl* salmon-white, cells pale salmon-buff

Gregarious Wholly or half buried, involved in rooting masses of white Myc Amongst roots, grass, earth and mycelium Oct-Nov Diam $\frac{1}{2}$ in

CXXIV MELANOASTER Corda

(From the black interior, *Gr melas*, black, *gaster*, the belly)

Peridium without a distinct base, branched fibres springing from every part of its surface Cells of gleba more or less rounded, large in the centre, smaller towards the periphery, walls of cells thick,

continuous with the peridium. Spores 3-5, subsessile on the basidia, smooth, usually coloured (Fig 141)

The absence of a distinct rooting base, the branched fibres

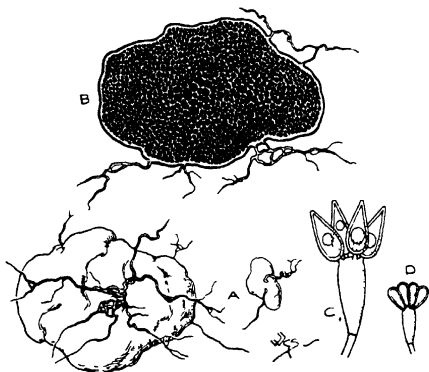


Fig 141—A 1 *Melanogaster ambigua* Tul. entire and in section. Natural size
c basidium and spores. X 500. B basidium and spores of *M. variegatus* Tul. X 500

traversing the whole surface of the peridium and the smooth spores are characteristic

Species 2102, 2103

2102. *M. variegatus* Tul (from the variegated gleba) a b c

Irregularly globose or nodular-oval. *Pe* adpressedly tomentose, at first yellow or ochraceous, then dark reddish-ferruginous. *Gf* blackish with indigo-black cells. *Trama* white, whitish or bright orange.

More or less exposed above ground during growth, covered with leaves and twigs. Taste sweet and approved by many when cooked, odour sharp, strong, aromatic, agreeable, not unlike bitter almonds. Under beech, poplar, oak. June-Nov. 2½ in. Spores 10 × 5 μ, elliptic-oblong. Patch on the Continent, harmless but hardly pleasant. Sold half a century or more ago as an esculent in Bath under the name of Red Truffle. Var *Broomianus* Tul. *Trama* dull white or yellowish, never bright yellow or orange. Usually gregarious, some two or three inches beneath the surface or half exposed. Scentless when young but soon acquiring a sweet, treacley odour, or a scent of decaying pears.

2103. *M. ambiguus* Tul (from its being doubtfully a true species, *ambiguus*, doubtful) a b c

Irregularly globose or oval-nodular. *Pe* nearly even, pale olive then reddish-brown. *Gf* jet- or slate-black. *Trama* buff-white or white.

Highly fetid of assafoetida. Under beech, poplar, oak, fir. April-Oct. 1½ in. Spores 13-15 × 7-8 μ, ovate, papillate. Var *intermedius* Tul has a yellowish *trama* which becomes red in drying.

CXXV HYDNANGIUM Wallr ex Klotzsch

(From the tuberous form, Gr *hudnon*, a tuber or truffle,
aggeion, a vessel)

Peridium fleshy or membranous, smooth or silky, sterile base not developed. *Trama* vesicular, cells minute, unequal, at first empty then filled with globose or ovate, echinulate spores. *Spores* 2-4.
(Fig 142)

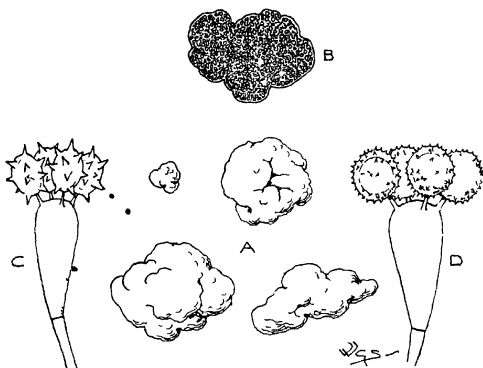


Fig 142 A *Hydnangium carotæcolor* Berk. entire and in section $\times \frac{1}{2}$
C basidium and spores $\times 660$ D basidium and spores of *H. carneum* Wallr. $\times 660$

The globose or ovate, usually small spores and the absence of a sterile base separate *Hydnangium* from its nearest ally *Octaviania*

Species 2104, 2105

2104 *H. carotæcolor* Berk (from the carrot-like colour, *carota*, carrot) *a b c*

Globose-oblong or oblong-rounded, nodular, rootless. *Pi* thin, slightly tomentose, carrot-red, becoming dark orange-brownish when dry. *Gl* orange.

Sometimes half exposed, often superficial. Woods, downs, under trees. Aug-Jan. Diam $1\frac{1}{2}$ in.

2105 *H. carneum* Wallr ex Klotzsch (from the flesh-colour *carneus*, of flesh) *a b c*

Irregularly subglobose or rounded-elongate, rootless, *Pi* very thin, at first covered with white fugacious down, flesh-colour, becoming ochreous-salmon when dry.

Subterranean or half exposed, often superficial. Above the roots of *Eucalyptus*, etc. Oct-Dec. Diam $\frac{3}{8}$ in.

CXXVI HYSTERANGIUM Vitt

(From the shape, Gr *hustera*, the womb, *aggeion*, a vessel)

Peridium more or less separating from the gleba in drying *Gleba* cartilagino-glutinous, cavities at first empty *Spores* 2-3, seldom more, smooth (Fig 143)

Characterised by the elongate elliptical smooth spores and the cartilaginous-mucous consistency of the gleba, which resembles

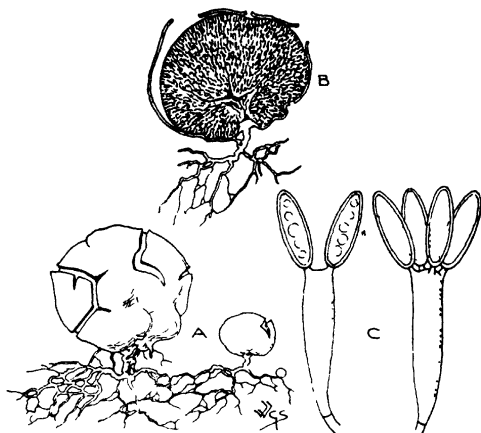


Fig 143—A 1 *Hysterangium nephriticum* Berk. entire and in section $\times \frac{1}{2}$
C, basidia and spores $\times 660$

that of *Ithyphallus* and *Clathrus* in the young state. There is frequently a copious development of mycelium. Species 2106, 2107

2106 *H. nephriticum* Berk (from a fancied resemblance to a kidney when seen in section, Gr *nephros*, the kidneys) *a b c*

Irregularly globose, more or less indented. *Pe* somewhat thick, firm, elastic, tomentose, white, becoming pale rufous when bruised. *Gl* pale blue or grey, here and there greenish, cells irregular, minute, radiating from the base.

Commonly 8-9 in deep in the ground. Odour at first slight, then like *Hyericum*, at last like decaying puff balls. Woods. Sept.-Feb. $\frac{3}{4}$ in

2107 *H. Thwaitesii* B & Br (after George Henry Kendrick Thwaites) *a b c*

Irregularly globose, more or less indented. *Pe* membranous, slightly silky, white, becoming rufous when bruised.

Commonly 8-9 in deep in the ground. Woods. Aug.-Oct. $\frac{1}{2}$ in

Rhizopogon

HYMENOGASTRACEÆ

CXXVII RHIZOPOGON Fr

(From the tuberous growth with the attached fibres,
Gr *rhiza*, a root, *pogon*, a beard)

Peridium thick, subcoriaceous or submembranous, continuous or cracked and somewhat evanescent, with vein-like branched fibres

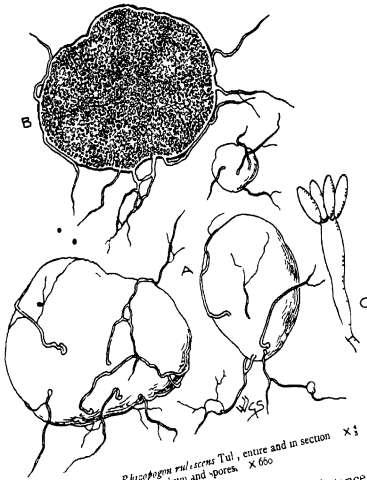


Fig 144 — A B, *Rhizopogon rubescens* Tul, entire and in section $\times \frac{1}{2}$
C, basidium and spores. $\times 660$

traversing and partially adnate to the surface, substance of gleba
firm, cavities at first empty Spores 2-7 (Fig 144) Species 2108, 2109

2108 *R. rubescens* Tul (from its becoming vinous rose-colour when
bruised, *rubescens*, becoming red) a b c
Irregularly subglobose or ovate *Pi* silky, white, when mature
yellow, olive or warm-brown *Gl* at first white, then yellowish,
greenish or brownish
Somewhat superficial but often some inches deep Odour acid, when young
like sour ham, at length nauseous fetid Sandy fir woods, plantations in
very light peaty or fibrous soil, amongst pines Oct-Dec Diam $\frac{1}{8}$ in
Var *Berkeleyanus* W G Sm, *Melanogaster Berkeleyanus* Br, smaller and
highly fetid

2109. *R. luteolus* Fr (from the dull yellowish colour when half-mature, *luteolus*, yellowish) *a b c*

c Irregularly subglobose or ovate *Pe* thick, subcoriaceous, whitish to dull yellow and olive- or nut-brown *Gleba* black with white septa

Solitary or gregarious Subterranean or partly exposed Taste insipid, odour at first weak then strong and offensive Sandy fir woods, under beech Sept–Oct Diam $1\frac{1}{2}$ in

CXXVIII HYMENOGASTER Vitt

(From the usually thin peridium, *Gr humen*, a membranc,
gaster, the belly)

Globose or irregular *Peridium* fleshy or thin, simple, homogeneous, running down into a sterile base, except **2116** Cavities of gleba at first empty, radiating from the base or irregularly scattered

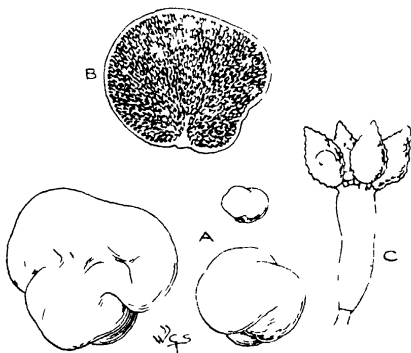


Fig. 145—A 1 *Hymenogaster tener* Perk. entire and in section $\times 3$
C basidium and spores $\times 66$

Trama composed of elongate cells, not of byssoid flocci, not easily separable *Spores* 1–4 (Fig 145)

All the species are nearly superficial in growth, none are edible

Species **2110–2122**

2110 *H. Klotzschii* Tul (after Johann Friedrich Klotzsch) *a b c*

Irregularly globose to kidney-shaped *Pe* adpressedly downy, fibrillose at base, dull white becoming yellowish *Gf* pallid, becoming rufous-ochre

Sandy soil Dec Diam $\frac{1}{2}$ in

- 2111 H muticus** B & Br (from the absence of a base, *muticus*, curtailed, blunt) *a b*
 Globose, scarcely lobed *Pe* at length much cracked, white then brownish *Gl* almost destitute of a sterile base, somewhat firm and dry, cells loose, pale yellowish-brown
 Odour slight Nov Diam $\frac{5}{8}$ in
- 2112 H luteus** Vitt (from the yellow gleba, *luteus*, yellow) *a b c*
 Irregularly globose or ovate, sometimes deformed *Pe* very thin, soft, silky, white to brownish *Gl* bright yellow
 Almost scentless or slightly sweet, becoming fetid Sept-Mar Diam 1 in
- 2113 H lycoperdineus** Vitt (from the shape, like a small puff-ball, *Lycoperdon*) *a b c*
 Subglobose, somewhat deformed, varied in form, plicate at base, *Pe* smooth, white then pale whitish-salmon to brownish *Gl* soft, elastic, with somewhat large, irregular cavities, pallid to pale fuliginous
 Gregarious Odour strong, onion like, unpleasant when dry In earth and clay Nov Diam $1\frac{1}{8}$ in
- 2114 H decorus** Bull (*decorus*, seemly) *a b c*
 Irregularly globose or oval, sometimes slightly deformed *Pe* dull white becoming yellowish in places *Gl* lilac-brown at length blackish
 Woods, tan pits Oct-Nov Diam $1\frac{1}{8}$ in
- 2115 H vulgaris** Tul ex B & Br (from its commonness, *vulgaris*, common) *a b c*
 Subrotund, irregular, often indented, somewhat soft *Pe* white, becoming discoloured *Gl* with rather large irregular cavities, dull white then dark brown
 Gregarious or subcespitate Loose soil July-Oct Diam $\frac{3}{8}$ in
- 2116 H pallidus** B & Br (from the pallid peridium) *a b*
 Rounded, depressed *Pe* nearly smooth, somewhat soft, white, then dull tan-colour *Gl* without a sterile base, white, yellow, then pale brown
 Odour weak Fir plantations Oct Diam $\frac{3}{8}$ in
- 2117 H citrinus** Vitt (from the colour, *citrinus*, lemon-yellow) *a b c*
 Irregularly globose or ovate, lobed, indented, deformed *Pe* shining as if silky, greenish-lemon when young, then lemon, golden-yellow, bright brassy-yellow or sulphur-cream, becoming rufous-black
 Used as food in past times by country folk in the truffle districts of England
 Odour, which communicates itself to anything near, strong of cheese
 May-Dec Diam $1\frac{1}{4}$ in
- 2118 H olivaceus** Vitt (from the colour of the gleba, like a ripe olive) *a b c*
 Irregularly globose or ovate, lobed, indented, deformed *Pe* at first silky, whitish or faintly lemon, becoming rufescent when

- touched *Gl* whitish, passing through buff to rufous olive
Trama white
- Odour spicy Woods May-Nov Diam $1\frac{1}{2}$ in A form between this and 2117 has been named var *modestus* B & Br This is *H populetorum* B & Br non Tul
- 2119** *H tener* Berk (from the tender substance, *tener*, tender) *a b c*
 Globose, irregular, more or less indented, silky or obscurely scaly, soft, tender *Pe* thin, dull white *Gl* with a conspicuous sterile base, pale rose, then greyish-brown
 Odour strong, pungent, like the odour of acid *Lactaria*, in decay like sewer gas Woods, under oak leaves Sept-Jan Diam 1 in This is *H lilacinus* B & Br non Vitt
- 2120** *H. Thwaitesii* B & Br (after George Henry Kendrick Thwaites) *a c*
 Irregularly ovate or elongate to globose, firm *Pe* dull white, here and there discoloured *Gl* brown
 Sept-Oct Diam $\frac{1}{2}$ in
- 2121.** *H griseus* Vitt (from the grey gleba, *griseus*, grey) *a*
 Globose, somewhat irregular or depressed *Pe* brown, at first covered with evanescent whitish down *Gl* with minute grey cells which become mottled-blackish
 Odour sweet of hly of-the valley In leaf soil Diam $\frac{1}{2}$ in
- 2122.** *H pusillus* B & Br (from the small size, *pusillus*, small) *a b*
 Obovate or subdepressed, white *Gl* with a comparatively large sterile base, cells comparatively large, dull white
 Almost scentless Mossy ground Oct Diam $\frac{1}{2}$ in Yellowish brown when dry and then closely resembling *Sclerotium complanatum*

RECENT ADDITIONS

- 52a.** *Lepiota serena* Gill (*serenus*, clear, bright) White
P campanulate, glabrous, mid sometimes slightly darkened
St slender, subbulbous *A* deciduous
 Amongst grass Carlisle, Miss Decima Graham, Sept 1905 $1\frac{1}{2} \times 2\frac{3}{4} \times \frac{1}{2}$ in
- 121a.** *Tricholoma carneolum* Karst. (from the colour, *caro*, flesh)
P hemispherical to convexo-plane, pale flesh-colour *St* partly stuffed, rigid, subpruinose *G* finally very broad, very crowded, white
 Grassy places in woods Yorkshire, Sept 1908 $1\frac{1}{2} \times 1\frac{1}{2} \times \frac{1}{2}$ in
- 154b** *Clitocybe obscurata* Cooke in litt (*obscurus*, obscure)
P plane, then infundibuliform, moist, greyish-umber, paler towards marg *St* solid, smooth or slightly striate, slightly attenuate

- downwards and never clavate, colour as P G decurrent, subdistant, white
- Odour of meal Amongst grass and dead leaves in company with 154 Carlisle, Miss Decima Graham, Sept 1908 $2 \times 1\frac{1}{2} \times \frac{1}{4}$ in
- 187a Clitocybe connata** Gill (from the connate stems at the tuberous base) White
- P fleshy, thin, conical, then expanded with an evanescent umbo, unequal, naked St hollow, thick, smooth G unequally decurrent, narrow, crowded, subarcuate
- Moist woods Carlisle, Miss Decima Graham, Sept 1908 $2\frac{1}{2} \times 3 \times \frac{1}{2}$ in
- 262 Collybia dryophila** Qué! Var *alvearis* Cooke in litt Large, coarse
- P shaped like a bee-hive, rufescent at mid, 3 in diam St very hollow
- Amongst dead leaves Carlisle, Miss Decima Graham, Sept 1908
- 593a Pholiota sororia** Karst (from its relationship to 593, *soror*, a sister)
- P fleshy, convex-expanded, striate, squamulose, fulvous cinnamon St fistulose, equal, flexuous, with white fibrillose sq, apex furfuraceous G sinuato-adnate, crowded, pallid-cinnamon
- On wood shavings Yorkshire, Sept 1908
- 640a Inocybe commixta** Bres (from being confused with 640, *commixtus*, mixed together)
- P fleshy, conico-campanulate, expanso-umbonate, white or white-cinereous, silky-fibrillose, dry marg often fissile St solid, white, slightly pruinose, apex furfuraceous, base turbinato-bulbous G crowded free, white to grey-cinnamon
- Pine woods Yorkshire, Sept 1908

GENERA OMITTED

Cenococcum Fr, one of the *Tuberaceae*

Pilacre Fr, placed by Lindau (in Engler and Prantl, *Pflanzenfamilien*, vol 1 pt 1**, p 86) near *Auricularia*, is of doubtful position

Polyangium Link, an insect production

Thelebolus Tode, one of the Ascomycetes

CORRIGENDA

- Page 110, No 505a *for* C Sarnicus *read* C sarnicus
 , 171, No 788 *for* P Elvensis *read* P elvensis
 ,, 317, after **BOLETUS** *for* Dill *read* L
 , 333, after **POLYPORUS** *for* Mich *read* Haller
 344, No 1563 *after* fumosus *add* Fr
 ,, 368, after **MERULIUS** *for* Halle *read* Haller
 ,, 436, No 1965a, *for* tenerima *read* tenerrima
 , 449, after **TREMELLA** *for* Dill *read* L
 ,, 462 *after* **CLATHRUS** *for* Mich *read* L
 , 467, after **GEASTER** *for* Mich *read* Lers

GLOSSARY

- Adnate** (*adnascor*, to grow to), of gills broadly attached to the stem
- Adnexed** (*ad*, to, *necto*, to join), of gills slightly joined to the stem
- Æcidia** (Gr *oikidion*, a little house), small cup shaped fungi
- Æruginous** (*ærugeo*, rust of copper), the blue green colour of verdigris
- Æstival** (*ætralis*), belonging or peculiar to summer
- Agglutinate** (*agglutino*, to glue), glued to a surface
- Algal** (*alga*, a seaweed), relating to *Algae*, a group to which belong the seaweeds and many fresh water plants, including microscopic green plants which grow in water and damp places
- Alveolate** (*alveus*, a hollow), in the form of small depressions like a shallow honeycomb
- Amphigenous** (Gr *amphi*, around, *gennaō*, to beget), not confined to one surface all round, as in the hymenium of *Clavaria*
- Anastomosing** (Gr *anastomosis*, a bringing to a point), united by running together irregularly
- Annular**, in the form of a ring
- Annulate**, bearing a ring on the stem
- Annulus** (*annulus*, a ring) the ring round the stem
- Apiculate** (*apex*, the top) terminating in a small point
- Appendiculate** (*appendicula*, a small appendage), hanging in small fragments
- Appanate** (*aplatō*, to flatten), made flat, flattened
- Approximate** (*ad*, to, *proximo* to approach) of gills which approach but do not touch the stem
- Arachnoid** (Gr *arachne*, a spider's web, *eidos*, resemblance) like a cobweb
- Arcuate** (*arcuatus*, bent like a bow), of gills, bow-shaped
- Areolate** (*area* a plot, a space) divided into small areas or patches
- Ascus** (Gr *askos*, a wine skin), the swollen end of a hyphal branch, in which spores are borne in *Ascomycetes*
- Atomate**, sprinkled with small particles
- Basidium** (*basidium*, a little pedestal) the mother cell which bears the spores in *Hymenomycetes* and *Gasteromycetes*
- Bifid** (*bipidus*, twice cleft), divided half way into two
- Bullate** (*bullula*, a bubble), furnished with a boss or stud
- Byssoid** (*byssus*, fine flax), composed of fine threads
- Cæspitose** (*caespes*, a clump), growing in tufts
- Calyptra** (*calyptra*, a hood), any extinguisher shaped covering
- Campanulate** (*campana*, a bell), bell shaped
- Cancellate** (*cancellatus*), latticed, as in *Clathrus*
- Capitulum** (*capillus*, a hair), the dense mass of sterile fibres mixed with the spores in the gleba of the *Gasteromycetes*

Cerebriform (*cerebrum*, the brain), having an irregular brain like appearance, like the kernel of a walnut

Ciliate (*cilium*, an eye lash), fringed with hairs

Cinereous (*cinis*, ashes), ash-coloured

Cingulate (*cingulum*, a girdle), bearing a ring or annulus on the stem

Clavate (*clava*, a club), club shaped

Columella (*columella*, a small pillar), the small columnar base of barren tissue in *Lycopodium*, *Geaster*, etc

Conceptacle (*conceptaculum*, a receptacle), a hollow case enclosing reproductive bodies

Conchiform (*concha*, a shell), shell shaped

Concrete (*concretus*, growing together), as when the scales adhere to the flesh of the pileus

Conidia (Gr *konis*, dust), simple asexual spores

Connate (*con*, together, *nascor*, to be born), united by growing together

Connivent (*conniveo*, to wink), arching over to meet

Coriaceous (*corium*, leather), leathery

Cortex (bark or rind), the periderm in the *Gasteromycetes*

Corticate, with a bark like covering

Cortina (*cortina*, a veil), a veil of spider web structure as the veil in *Cortinarius*

Cortinate, furnished with a veil

Costate (*costatus*, ribbed), ribbed or veined

Crenate (*crena*, a notch), with rounded notches on the margin

Crenulate, with small rounded notches

Cribose (*cribrum*, a sieve), pierced with many holes

Cupulate (*cupula*, a little cup) cup shaped

Cuspidate (*cusps*, a point spear), with a sharp spear like point

Cuticle (*cuticula*, the outer skin), the outermost skin

Cyathiform (Gr *kyathos*, a wine cup), cup shaped

Decumbent (*decumbere*, to recline), reclining but with summit ascending

Decurrent (*decurro*, to run down), of gills and tubes running down the stem in the *Agaricaceae*, *Polyporiaceae*, etc

Dehiscing (*dehisco*, to yawn), opening when ripe

Deliquescent (*deliquescentis*, melting away), becoming fluid when mature

Denticulate (*denticulatus*, minutely toothed), as in the minute teeth on the edge of the gills in certain *Agaricaceae*

Depressed (*depressus*, sunk down), slightly hollowed

Determinate (*determino*, to limit), ending definitely, as in the margin of some species of *Corticium*, etc., not powdered or clouded off indefinitely

Diaphanous (Gr *dia*, through, *phano*, to appear), more or less transparent

Dichotomous (Gr *dichotomizo*, to cut in two), divided into two, forked

Dimidiate (*dimidio*, to halve), as when one part of an organ is smaller than the other as in the pilei of many fungi

Disciform (*discus*, a quoin), circular and flat

Dissepiments (*dissepimentum*, a partition), dividing walls

Distant, of gills in the *Agaricaceae* with a wide distance between them

Divaricate (*divarico*, to spread asunder), very divergent, separating at an obtuse angle

Echinulate (*echinus*, a hedgehog), with short bristles

Effused (*effundo*, to pour out), spread over without regular form

- Emarginate** (*e*, out of, *margo*, the margin), of gills with a sudden curve as if scooped out at the point of attachment to the stem
- Endoperidium** (Gr *endon*, within), the inner layer of the peridium
- Endophyte, Entophyte** (Gr *entos*, within, *phuton*, a plant), growing within another plant
- Epiphyte** (Gr *epi*, upon, *phuton*, a plant), growing upon another plant
- Eruptent** (*erumpens*, breaking through), bursting through the epidermis
- Evanescient** (*evanescens*, disappearing), lasting only a short time
- Excipulus** (*excipula*, a basin), the rim round the base of the apothecium
- Exoperidium** (Gr *exo*, without), the outer layer of the peridium
- Farinose** (*farina*, meal), mealy
- Fasciate** (*fascia*, a band or girth), zoned as with coloured bands
- Fasciculate** (*fascis*, a bundle), growing in small bundles
- Fastigate** (*fastigium*, a slope or gable), with branches parallel, clustered and erect, sometimes decreasing in height outwards and giving a gable shape
- Ferruginous** (*ferrum*, iron), of the colour of iron rust
- Fibrillose** (*fibra*, a fibre), clothed with small fibres
- Filiform** (*filum* a thread), thread like
- Fimbriate** (*fimbria*, a fringe), fringed
- Fissile** (*fissili*, tending to split), capable of being split
- Fistulose** (*fistula*, a pipe), hollow like a pipe
- Flocci** (*floccus*, a lock of wool), woolly locks
- Floccose**, woolly
- Flocculent**, diminutive of floccose
- Flocculose**, covered with small flocci
- Free**, of gills which reach the stem, but are not attached to it
- Fuliginous** (*fuliginus*, sooty), soot coloured
- Funiculus** (*funis*, a rope), a cord of hyphae in *Nidularia* which attaches the peridium to the inner surface of the wall of the peridium
- Furcate** (*furcatus*, forked) as in the branching gills common in *Russula*
- Furfuraceous** (*furfur*, bran) with branny scales or scurf
- Fuscous** (*fuscus*, dusky), of a dingy brownish colour
- Fusiform** (*fusus*, a spindle), somewhat thick but tapering towards each end
- Fusoid**, somewhat spindle shaped
- Gibbous** (*gibbus*, hump backed), of a pileus with a swelling or broad umbo, or convex above and flat beneath
- Gills**, the plates of an agaric on which the hymenium is situated
- Glabrous** (, *aber*, without hair), not bearing hairs
- Glaucous** (Gr , *laucos*, bluish-grey), covered with a bluish grey bloom
- Gleba** (, *leba*, a clod), the contents of the peridium in the *Gasteromycetes*
- Greaved**, of a stem clothed as if with a greave
- Gregarious** (, *regaris*, belonging to a flock), growing in company, but not caespitose
- Grumous** (, *rumus*, a little heap), clotted, of flesh composed of little clustered grains
- Guttate** (*gutta*, a tear), with tear like spots
- Gyrose** (Gr *gyros*, round), curved backward and forward in turn
- Habit** (*habitus*, appearance), the general appearance
- Habitat** (*habitatio*, dwelling), the locality

Heterogeneous (Gr *heteros*, one of two, *gennao*, to beget), not uniform in structure

Hispid (*hispidus*, bristly), beset with rough hairs or bristles

Homogeneous (Gr *homos*, one and the same, *gennao*, to beget), uniform in structure

Hyaline (*hualos*, clear), colourless, translucent

Hybernaculum, hibernaculum (*hiberne*, to winter), applied to forms in which certain fungi pass the winter, sclerotia

Hygrometric (Gr *hygros*, moist, *metron*, a measure), influenced by moisture

Hygrophanous (Gr *hygros*, moist, *phaino*, to appear), of a watery appearance when moist

Hymenium (Gr *hymen*, a membrane), the spore bearing surface

Hymenophore (Gr *hymen*, a membrane, *phero*, to bear), the structure which bears the hymenium, as the under surface of the pileus to which the gills are attached in *Agaricae*, the sporophore

Hypertrophy (Gr *huper* above, *trophe*, food), an abnormal enlargement of an organ by disease

Hypha (Gr *huphe*, a web), pl **hyphae**, the thread like element of which a fungus is made up

Imbricate (*imbricatus*, covered with tiles), overlapping as the tiles on a roof

Immarginate (*im*, negative, *margin*, a margin), without a distinct border

Immersed, sunk in the matrix

Inferior (*inferior*, lower) of the annulus on the stem far down

Infundibuliform (*infundibulum*, a funnel), funnel shaped

Innate (*in*, into, *nascor*, to be born), arising by its wing near

Involute (*in*, in, *volvo*, to roll), rolled inwards.

Isabelline or **Isabella** colour, dirty tawny, as of soiled linen

Laciniate (*lacinia*, a lappet, flap), divided into flaps

Lacunæ (*lacuna*, a hole or cavity), holes or depressions

Lacunose, marked with small hollows

Lamellæ (*lamella*, a thin plate), the gills in *Agaricae*

Lanceolate (*lancea*, a lance or spear), lance shaped narrow and tapering to both ends

Linear (*linea*, a line), narrow and straight, several times longer than wide

Locus (*loculus*, a little compartment), a cell of a septate spore

Mammiform (*mamma*, a breast), breast shaped

Marginate (*margin*, a margin), having a distinct border

Matrix (*matrix*, the womb), the substance on which a fungus grows

Medial (*medium*, the middle), of the annulus, when at the middle of the stem

Merismoid (Gr *merizo*, to divide, *eidos*, form), having a branched or laciniate pileus

Meruloid, resembling the hymenium of *Merulius*

Mitrate (Gr *mitra*, a head-dress), with thick rounded pileus

Mucedinous (*mucedus*, mouldy), of the nature of the group *Mucedines*, naked spored moulds

Multifid (*multifidus*, many cleft), divided half way into many lobes

Multipartite (*multipartitus*, many times divided), divided many times and more deeply than multifid

Muricate (*murex*, a sharp stone, a bit with sharp spikes, a spiked ball), rough with short hard tubercular excrescences

Muriform (*murus*, a wall), with cells resembling bricks in a wall

Mycelium (Gr *mykes*, a fungus), spawn of fungi, the vegetative portion, composed of hyphæ

Mycology (Gr *mykes*, a fungus, *logos*, a discourse), the study of fungi

Nuclear (*nucleus*, a kernel), pertaining to a kernel like growth as in *Namatelia*

Obconic (*ob*, inversely, *conus*, a cone), inversely conical

Obovate (*ob*, inversely, *ovum*, an egg), inversely egg shaped

Obtuse (*obtusus*), blunt or rounded at the end

Ochreous (*ochra*, yellow earth), yellow, not red-ochre

Operculum (*operculum*, a lid), a cover

Ostiolum (*ostiolum*, a little door), the aperture through which the spores escape in the *Gasteromyces*

Ovate (*ovum*, an egg), egg shaped

Papilla (*papilla*, a nipple), a nipple like elevation

Papillate, Papillose, with nipple like elevations

Paraphyses (Gr *para*, beside, *physis*, growth), sterile filaments in a hymenium

Partial, of a veil, clothing the stem and reaching to the edge of the pileus, but not extending beyond it

Patelliform (*patella*, a small dish), dish shaped

Pectinate (*pecten*, a comb), like the teeth of a comb

Pedicel (*pediculus*, a small foot), a support or stalk, as the small column which supports the inner peridium in some species of *Geaster*

Pedicellate, born on a pedicel

Pellicle (*pellucula*, a small skin), a delicate superficial membrane

Pelliculose, furnished with a pellicle or delicate distinct skin

Peltate (*pelta*, a target), target shaped

Pencilled with pencil like hairs either on the tip or border

Penicillate (*penicillum*, a little brush), pencil shaped

Peridiola, diminutive of peridium

Peridium (Gr *peridion*, a little pouch), the outer enveloping coat enclosing the gleba in the *Gasteromyces*

Peristome (Gr *peri*, about, *stoma*, a mouth), the fringe or its homologue round the orifice of the peridium in *Geaster*, *Tulostoma*, etc., amongst the *Gasteromyces*

Perithecium (Gr *peri*, about, *theka*, a case), a receptacle enclosing spores

Peronate (*perna*, a kind of high boot), sheathed, e.g. of a stem which has a woolly covering like a legged boot

Pervious (*pervius*, passable), having an open passage way, hollow to the base, as in some stems

Pezizoid (*peidos*, resemblance), cup shaped, like a *Peziza*, a genus of *Ascomycetes*

Pileate, with a cap

Pileoli, secondary pilei, arising from the division of a primary pileus

Pileus (*pileus*, a cap), a part of the receptacle of a fungus, e.g. the cap like head in *Agaricaceæ*

Pilose (*pilus*, a hair), covered with hairs

Plane (*planus*), level, even, flat

Plasmodium (Gr *plasma*, formed substance), the naked nucleated protoplasm of the *Myxozoa*

Plicate (*pluo*, to fold), folded into plaits

Plumose (*plumosus*, feathered), downy

Polymorphic (Gr *polus*, many, *morphe*, a change), with several or various forms

Poriform, in the form of pores

Porous, furnished with pores

Potential (*potentia*, a force), existing in possibility, rather than in actuality

Proliferous (*proles*, offspring, *fero*, to bear), applied to an organ which gives rise to secondary organs of the same kind

Promycelium (*pro* for, *mycelium*, the vegetative portion of the thallus composed of hyphæ), the short lived product of germination of a spore which bears spores of a different nature from the mother spore

Protoplasm (Gr *protos*, first, *plasma*, formed substance), the living substance of plants and animals

Pruinose (*pruina*, hoar frost), covered with frost like bloom

Pruniform (*prunus*, a plum), plum shaped

Pubescent (*puber*, downy), slightly hairy

Pulverulent (*pulverulentus*, dusty), powdered as if dusted over

Pulvinate (*pulvinus*, a cushion), cushion shaped

Punctate (*punctus*, a point), dotted with points

Pyriform (*pyrus*, a pear), pear shaped

Racemose (*racemus*, a bunch of grapes) borne in a bunch

Radiate (*radius*, the spoke of a wheel), spreading from a centre

Receptacle (*receptaculum*, a reservoir), an axis bearing one or more organs, as the stem upon which the hymenium is elevated in the *Phallaria* etc

Remote, of gills which do not reach the stem but leave a free space round it

Reniform (*renes*, the kidneys), kidney shaped

Repand (*repando* to throw open), bent backwards

Resupinate (*recupine*, to throw on the back), with hymenium upward

Reticulate (*rete*, a net), netted

Revolute (*revolvo*, to roll back), rolled backwards, of the margin of a pileus—the opposite of involute

Rhizomorphoid, **rhizomorphous** (Gr *rhiza*, a root, *morphe*, shape), like a rhizomorph, a root like branched strand of mycelial hyphæ

Rimose (*rima* a crack) cracked

Rimulose, diminutive of rimose

Ring, a part of the veil adhering to the stem in the form of a ring or annulus

Rivulose (*rivula*, a small stream) marked with lines like rivulets

Rounded, applied to gills and tubes, rounded near point of contact with the stem

Rubiginous (*rubro*, rusty), colour of iron rust

Rufescent (*rufescens*), becoming reddish

Rufous (*rufus*), reddish

Rugose (*rua*, a wrinkle), wrinkled

Rugulose, somewhat wrinkled

Scabrous (*scaber*, rough), rough on the surface

Scales, applied to the broken up epidermis of the pileus and stem

Scarious (Gr *skaros*, a kind of sea fish), applied to a shrivelled membrane

Scissile (*scindo*, to cleave), capable of being cleft asunder, of two plates, etc lying together, but capable of being separated

Sclerotoid, sclerotium like

Sclerotium (Gr *skleros*, hard), a compact mass of hyphæ in a dormant state

Scrobiculate (*scrobis*, a trench), marked with small pits

Separating, becoming detached, as gills from a stem, or resupinate fungi from the matrix

Septate, divided

Septum (*septum*, a hedge), a division

Serrate (*serra*, a saw), toothed like a saw

Serrulate, minutely toothed

Sessile (*sideo*, to sit), seated without a stem

Setæ (*seta*, a bristle), bristles

Setulose, resembling a fine bristle

Simple, applied to a stem without ring or volva

Sinuate, waved, of a pileus with a wavy or curved margin, of gills with a sudden wave, curve or sinus where they reach the stem

Sinus (*sinus*), a curve

Smooth, applied to a surface which is destitute of hairs or other protuberances

Spathulate (Gr *spathe*, a spatula), spoon like

Spawn, see **Mycelium**

Sphæriæ, small spherical black fungi common on branches

Spiculæ (*spiculum*, a small needle), fine erect acutely pointed spines

Spinulose (*spina*, a thorn) bearing fine spines

Sporangium (Gr *spora*, a seed, *ageion*, a vessel), a spore bearing receptacle

Spores (Gr *spora*, a seed), the analogues of seeds of flowering plants

Sporidia, diminutive of spores—small spores

Sporophore (Gr *spora*, a seed, *phoreo*, to carry), the part which bears the hymenial surface

Squamose (*squama*, a scale), scaly

Squamule, a small scale

Squamulose, covered with small scales

Squarrose (*quarrosus*, rough, scurfy), rough with scales

Sterigma (Gr *sterigma*, a prop), pl **sterigmata**, the slender thread which carries a spore

Stipes (*stipes*), a stalk

Stipitate, stemmed

Stoloniferous (*stolo*, a short sucker or runner, *fero*, to bear), stolon bearing

Stoma (Gr *stoma*, a mouth), the mouth through which the spores escape in certain fungi, as *Geaster*, *Tulostoma*, etc

Striate (*stria*, a furrow, flute of a column), marked with lines in the form of channels

Strigæ (*striga*, a swathe), small stright hair like scales

Strigose, rough with sharp pointed hairs, hispid

Stroma (Gr *stroma*, a mattress), a cushion like body in which the perithecia of some fungi are immersed

Stuffed, of a stem filled with substance of a different texture from its walls

Subiculum (*subiculum*, an under layer), the felted or byssoid mycelium of a resupinate fungus, forming the under layer bearing the hymenium

Sulcate (*sulcus*, a furrow), marked with grooves

Superior (*super*, above), applied to the annulus when it is near the apex of the stem

Terete (*teres*, rounded), circular in transverse section

Tessellate (*tessellatus*, squared stones), checquered

- Tetrasporous** (Gr *tetras*, four, *spora*, a seed), bearing four spores
- Thallus** (Gr *thallos*, a sprout), the whole of the body which does not serve for reproduction
- Tomentose** (*tomentum*, wool, etc.), downy
- Trama** (*trama*, the web or filling of a web), the substance between the hymenial layers in *Agaricaceae* and *Polyporaceae*
- Tremelloid** (*tremo*, to tremble), of the consistency of jelly
- Truncate** (*trunc*, to maim), ending abruptly as if cut short
- Tubercle** (*tuberculum*, a little tuber), a small wart like excrescence
- Tuberculate**, with small warty projections or excrescences
- Tuberculiform**, resembling a little tuber
- Tubiform** (*tuba*, a trumpet), trumpet shaped
- Turbinate** (*turbinatus*, cone shaped), top shaped
- Umbilicate** (*umbilicus*, the navel) with a small central depression
- Umbonate** (*umbo* the boss of a shield), with a central boss like elevation
- Uncinate** (*uncinus*, a hook) hooked
- Universal**, of the veil or volva which entirely envelops the fungus when young
- Urceolate** (*urceola* a pitcher), pitcher like, hollow and contracted at the mouth, like an urn or pitcher
- Veil** (*velum*, a covering), a covering of various texture more or less completely enveloping a fungus when young
- Veliform** (*velum*, a covering) of a thin veil like covering
- Venose** (*venosus*, veins), having veins
- Ventricose** (*venter*, the belly), swollen in the middle
- Vermiform** (*vermis*, a worm) worm shaped
- Verrucose** (*crusta*, a wart), warty
- Versiform** (*versiformis*, changing shape), of different shapes, or alternating in shape with age
- Villous** (*villus*, a tuft of hair), downy with soft hairs
- Vinous**, of the colour of clare—dark or dilute
- Virgate** (*virga*, a twig, stripe), streaked
- Volva** (*volva*, a wrapper) a covering or sac enveloping the young fungus
- Volvate**, having a volva

Zone, a circle of hairs, asperities, colour, etc.

μ , a micromillimetre or $\frac{1}{1000}$ of a millimetre, used for spore measurement

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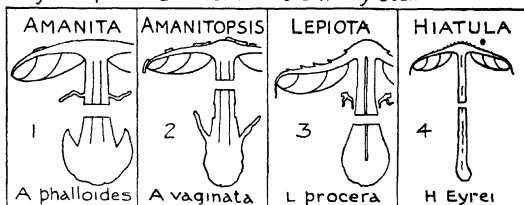
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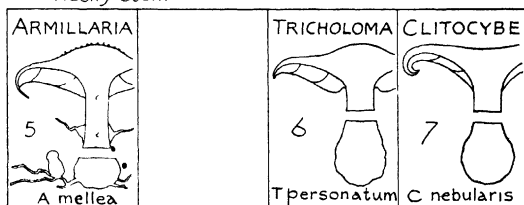
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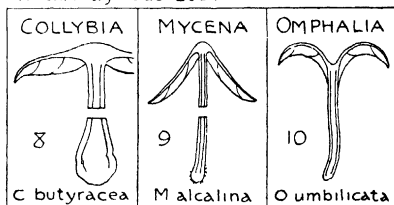
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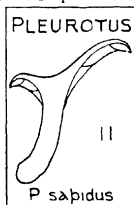
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+++ Hymenophore confluent with but heterogeneous from the cartilaginous stem

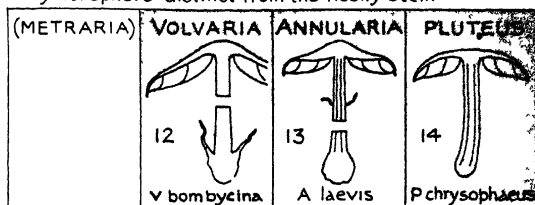


++++ Hymenophore confluent & homogeneous with the fleshy excentric stem

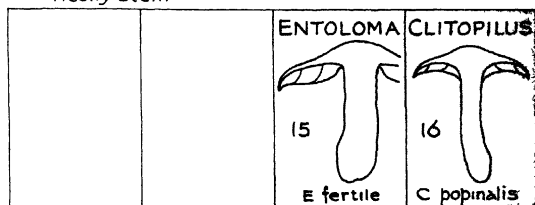


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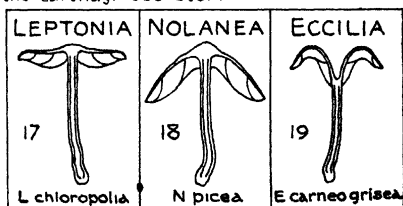
+ Hymenophore distinct from the fleshy stem



++ Hymenophore confluent and homogeneous with the fleshy stem



+++ Hymenophore confluent with but heterogeneous from the cartilaginous stem

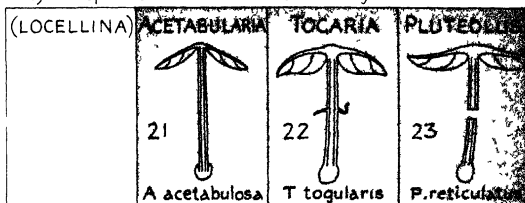


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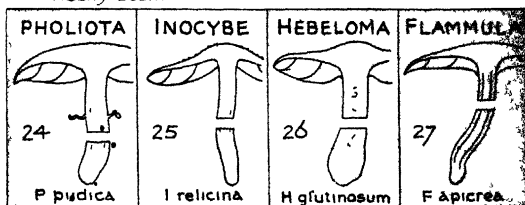


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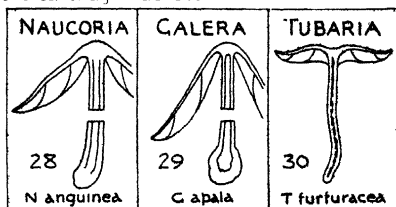
+ Hymenophore distinct from the fleshy stem



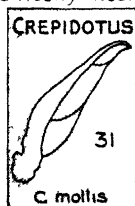
++ Hymenophore confluent and homogeneous with the fleshy stem



+++ Hymenophore confluent with but heterogeneous from the cartilaginous stem

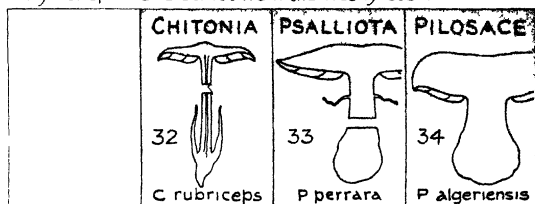


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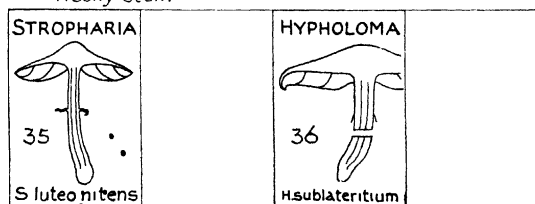


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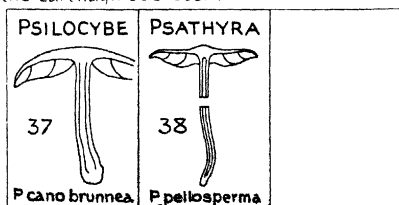
+ Hymenophore distinct from the fleshy stem



++ Hymenophore confluent and homogeneous, with the fleshy stem



+++ Hymenophore confluent with but heterogeneous from the cartilaginous stem




++++ Hymenophore confluent & homogeneous with the fleshy excentric stem



SER V COPRINARI



+ Hymenophore distinct from the fleshy stem

<p>ANELLARIA</p>  <p>39</p> <p>A. separata</p>			
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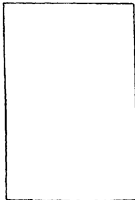
++ Hymenophore confluent and homogeneous with the fleshy stem

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+++ Hymenophore confluent with but heterogeneous from the cartilaginous stem

<p>PANÆOLUS</p>  <p>40</p> <p>P. phalænarum</p>	<p>PSATHYRELLA</p>  <p>41</p> <p>P. subatrata</p>	
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++++ Hymenophore confluent & homogeneous with the fleshy excentric stem



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